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Beat

231 | 04-2025

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INTERVIEW

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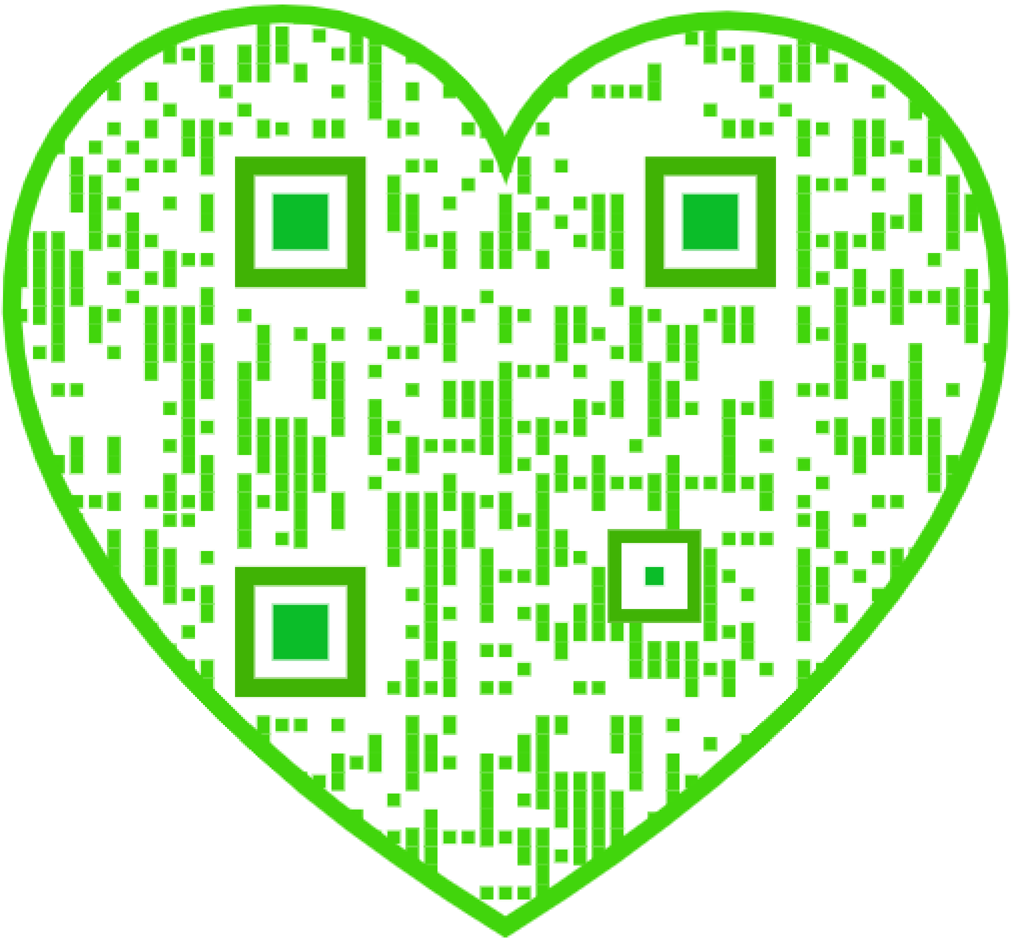

Win 21 prizes worth € 3,900

ONLY UNTIL MARCH 20

2025 marks the start of a new year that will hopefully be better and not bring as many disasters as the last few years. That‘s why we‘re kicking it off with fun and a promotion for you with lots to win!

There are 21 prizes with a total value of 3,900 euros waiting for you – from software such as Tone2 Icarus, Baby Audio Transit or Noiseworks DynAssist to hardware such as ADAM Audio D3V monitor boxes, ESI Xjam and Xkey controllers, Korg Keystage 49 and many more!

This is how it works:

1. Download stems.
2. Make a remix.
3. Submit your remix before March 20th.
4. Win!

HOW
RKS
HipHop Trap Boom Bap Gangsta
G-Funk Drill RnB Conscious Lo-Fi
HipHopEngine
FUEL
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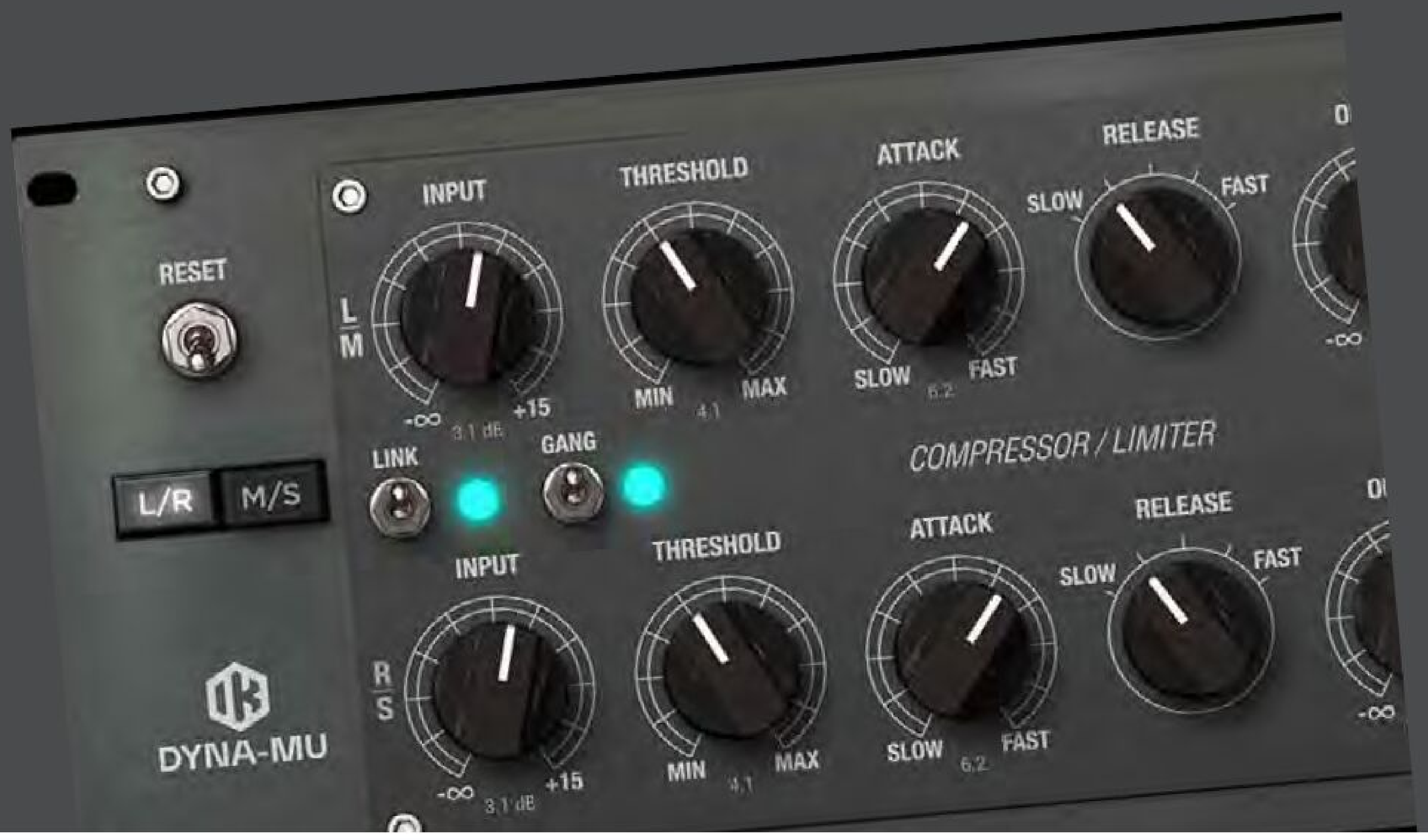
ADAM AUD
OMNITRONIC
GNOME 202

GET STARTED

SOFTWARE HIGHLIGHTS

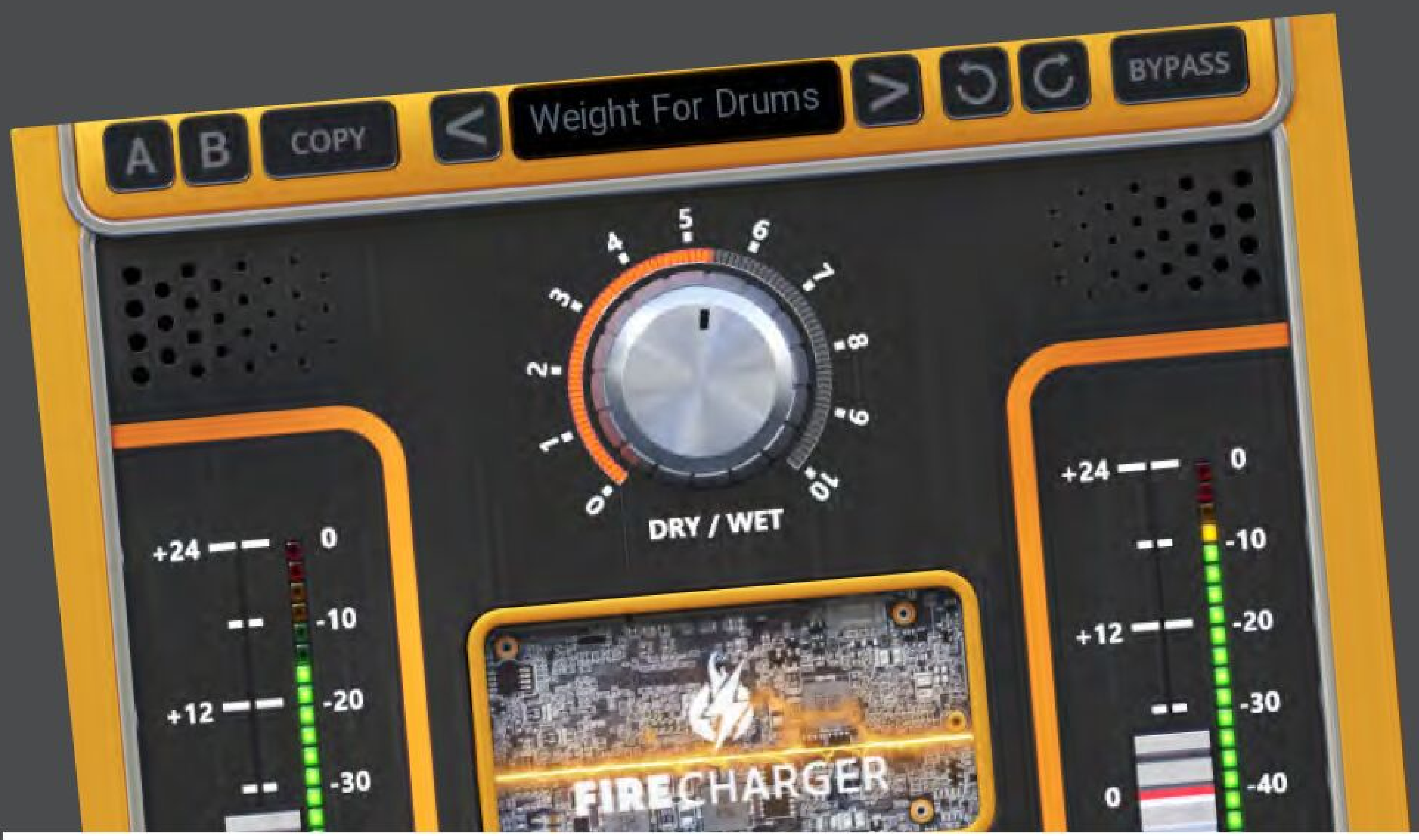

RESET
INPUT
THRESHOLD
ATTACK
RELEASE
SLOW
FAST
MIN
MAX
LINK
GANG
L/R
M/S
COMPRESSOR / LIMITER
DYNA-MU

Manley tube power for your DAW

IK Multimedia Dyna-Mu

This month you can look forward to a very special software highlight: a faithful emulation of the legendary Manley Vari-Mu Compressor/Limiter! IK Multimedia Dyna-Mu provides warm, musical compression and is particularly suitable for gluing together signals on Bus Tracks. This high-end tube dynamics processor can also enhance instruments and vocals with a professional and warm vintage sound.

Download: see page 9 | Info: ikmultimedia.com win | mac

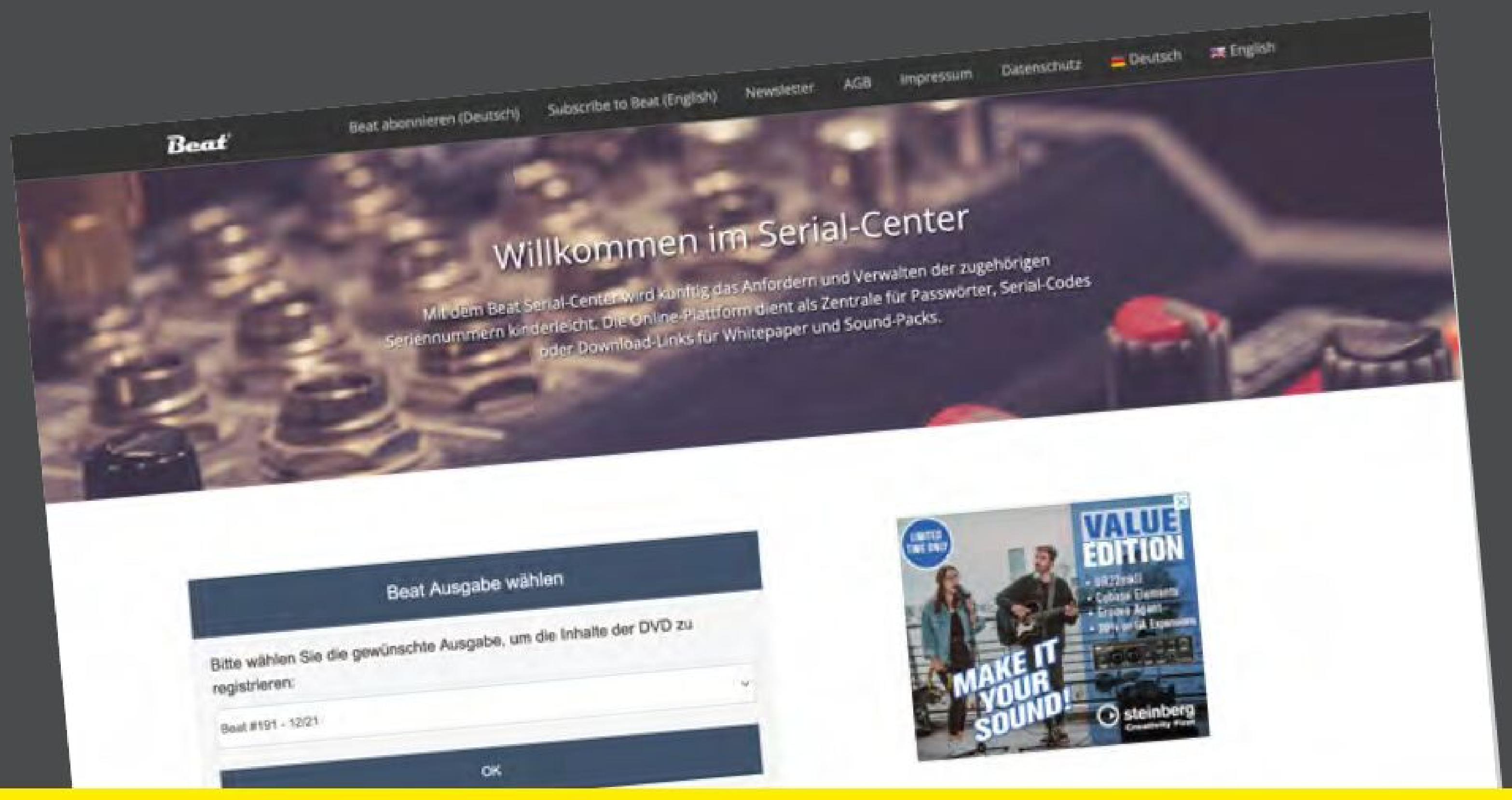

A
B
COPY
Weight For Drums
BYPASS
DRY / WET
FIRECHARGER

The first exciter that thinks for itself

FireSonic FireCharger

Whether you want to give old recordings more freshness, bring vocals and instruments to the foreground or give your mix more bite – FireSonic FireCharger will make your sound shine. This software highlight from our friends at UnitedPlugins combines intelligent spectral dynamics processing with analog tape saturation; ideal for single tracks, mastering and creative sound experiments.

Download: see page 9 | Info: unitedplugins.com win | mac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Beat #191 - 12/21

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To ensure that none of your serial numbers are lost in the future (for instance, in the event of a new installation, Outlook crash or disk crash), you can now conveniently manage them online. The advantages are obvious: The editorial team can send you targeted software updates, you have access to all serials at any time and from anywhere, and everything is managed and stored in a central location. The Serial Center thus becomes your personal password archive on the web.

www.serialcenter.de

Beat
ZAMPLER//RX
FILTER
LFO 1
LFO 2
BLASTER EDM
BEAT PLATINUM SELECTION

72 hi-energy synths & brute 808 basses

EDM Blaster for Zampler & MPCs

Brutal growls, power chords and punchy synths ... this expansion covers your needs for current and upcoming sounds. If you like main room hooks and basslines in the style of Deadmau5, KSHMR, Garrix or Hardwell and the like, then the 72 sampler patches are just for you! Load them into your Zampler or MPC and get started.

Download: see page 9 | More packs: zamplersounds.com win | mac

Beat #231 – Exclusive software
More than 18 GB of valuable plug-ins and samples to download

BIG TECHNO
14 GB
14 GB loops & instruments for Techno, Pop & Soul
STEVAN LLOY VOCAL SESSIO
CHRIS OCTANE PRESENTS DRUM & BASS CORE
URBAN WAVES
PRIME LOOPS
LOOPMASTERS PRESENTS NU CUMBIA
BASS / BEATS / SYNTHS
LOOPMASTERS PRESENTS UNDERGROUND CITY FX
ATMOSPHERES & LOOPS
Loopmasters

Discover the true Manley sound of the legendary high-end tube copressor and limiter with our full version Dyna-Mu from IK Multimedia. But not only Dyna-Mu contributes to the warm analog sound of your mixes, but also our second full version FireSonic FireCharger. This tool is a specialist for spectral dynamics processing with analog tape saturation.

Our EDM BLASTER expansion pack for the Zampler and the Akai MPC series offers a veritable synth monster of brute and hefty basses and energetic main room hooks. Add to that brutal growls and power chords and you've got a track that's sure to rock the next festival season.

Our loop and sample archive is very versatile and above all extensive, comprising a whopping 14 GB! Here you'll find epic strings, melodic synths, pop vocals, cinematic sounds as well as hard-hitting drums for Drum & Bass and Techno.

Contents compiled by the Beat editorial team

Pads/Death From Below *
Source
Op 1 Ratio
Op 2 Ratio
Op 3 Ratio
Op 4 Ratio
Op 5 Ratio
Op 6 Ratio
Main
Level
Pan
Tune
V: 0
Mixer
Macros
Macro 1
Macro 2
Matrix
Op 2 Level
FM SYNTHESIZER AND MODULATION MIRACLE

BaconPaul Six Sines

SixSines is an FM synthesizer with six operators, DAHDSR envelopes and a modulation matrix, which can produce bell-like, popping and even cutting sounds. In addition to basic waveforms, the Yamaha TX81Z synthesizer also offers waveforms. The 64-voice open-source sound generator also supports MPE.

Download: see page 9 | **Info: github.com/baconpaul/six-sines** win | mac | linux

UNSTABLE
MODULAR SOUND MONSTER

Morphoice Unstable (Beta)

Unstable is a brand new analog synthesizer that comes close to the sound of the legendary Yamaha CS-80. Two synthesis layers, filters, a ring modulator and several effects guarantee a fat analog sound. There are also two filters and an arpeggiator. The latter makes for exciting sequences. A few demo presets are included in the beta version.

Download: see page 9 | **Info: arthelion.com** win | mac

Exclusive download:
The Beat Studio

1,39 GB
EDM BLASTER! for Zampler & Akai MPCs

Apsonic Speedrum BE

Powerful drum sampler with 16 MPC-style pads

Acon Digital
Dynamics BE

Acon Dynamics BE

All-rounder with Compressor, Expander and Gate

Thorn Solo

Brute monosynth with all the finesse

Beat
ZAMPLER//RX

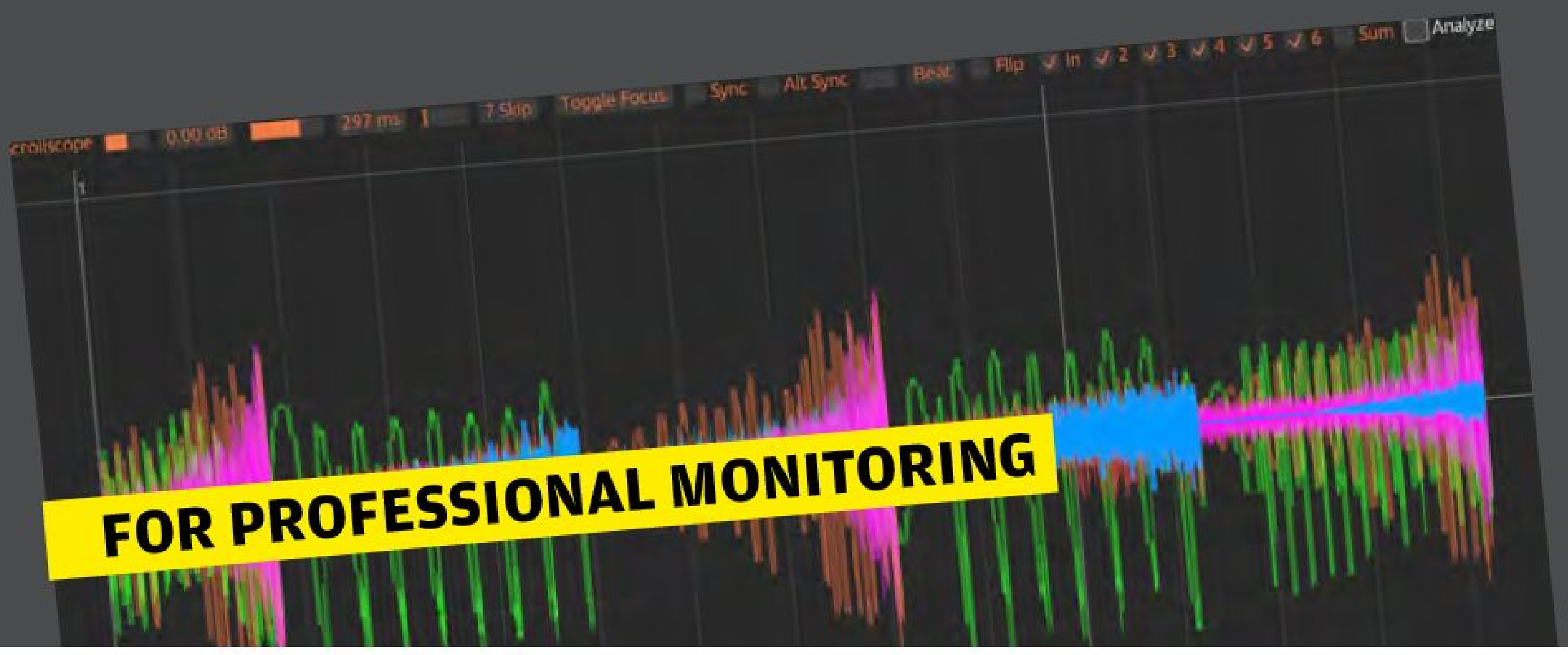
Zampler//RX

REX and SFZ player with mod Matrix & Parameter Sequencer

INTERFACE
PRESETS
SETTINGS
Low
Mid
High
EQUALIZER

Halls Of Fame 3 Beat

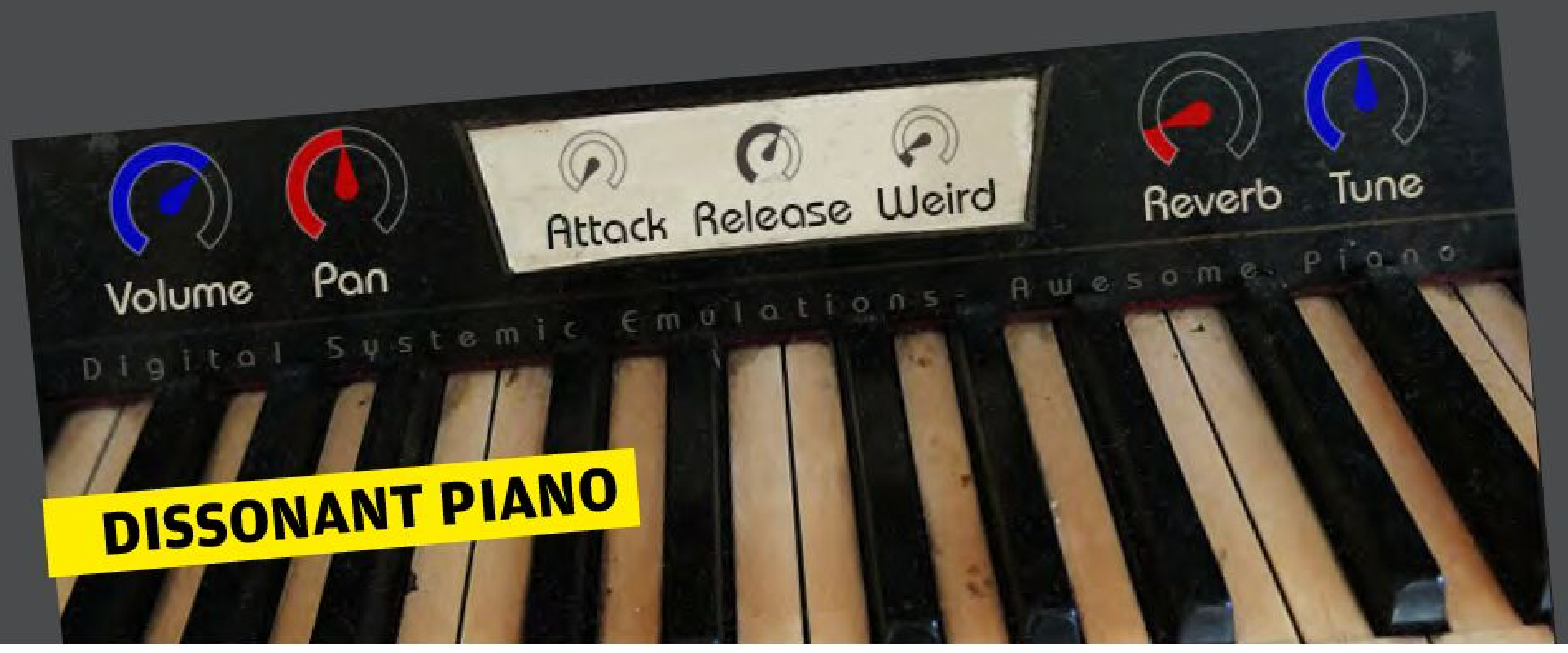
Luxury convolution reverb with Lexicon, Bricasti & EMT


FOR PROFESSIONAL MONITORING

Ardura Scrollscope

Scrollscope is a multi-channel oscilloscope with frequency analyzer that helps you monitor your mixes. It has one input and five aux inputs and can be used across DAWs.

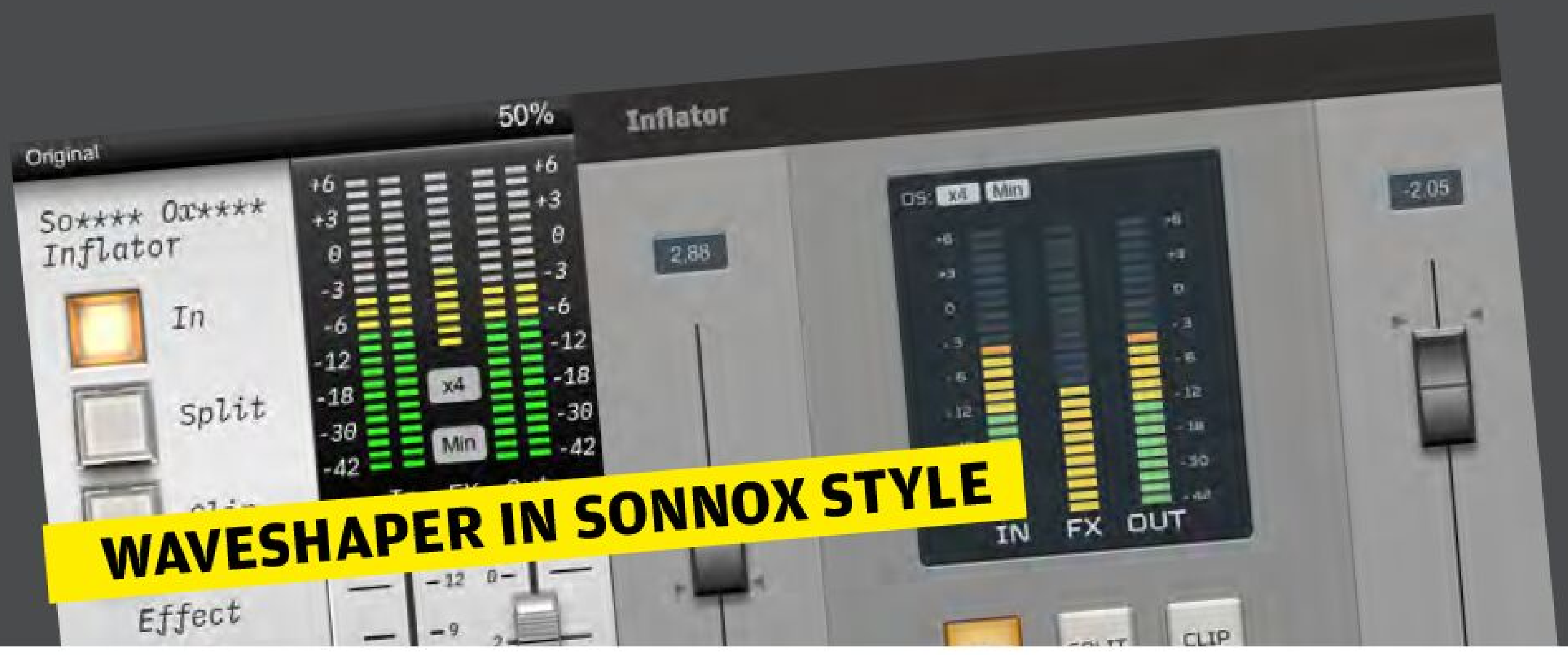
Download: see page 9 | **Info: github.com/ardura/Scrollscope** win | mac | linux


DISSONANT PIANO
Volume
Pan
Attack
Release
Weird
Reverb
Tune
Digital Systemic Emulations Awesome Piano

Digital Systemic Emulations Awesome Piano

Awesome Piano is a special piano with 20 MB of piano samples for broken and dissonant sounds. The out-of-tune, old and dusty piano fits well into soundtracks and movie clips.

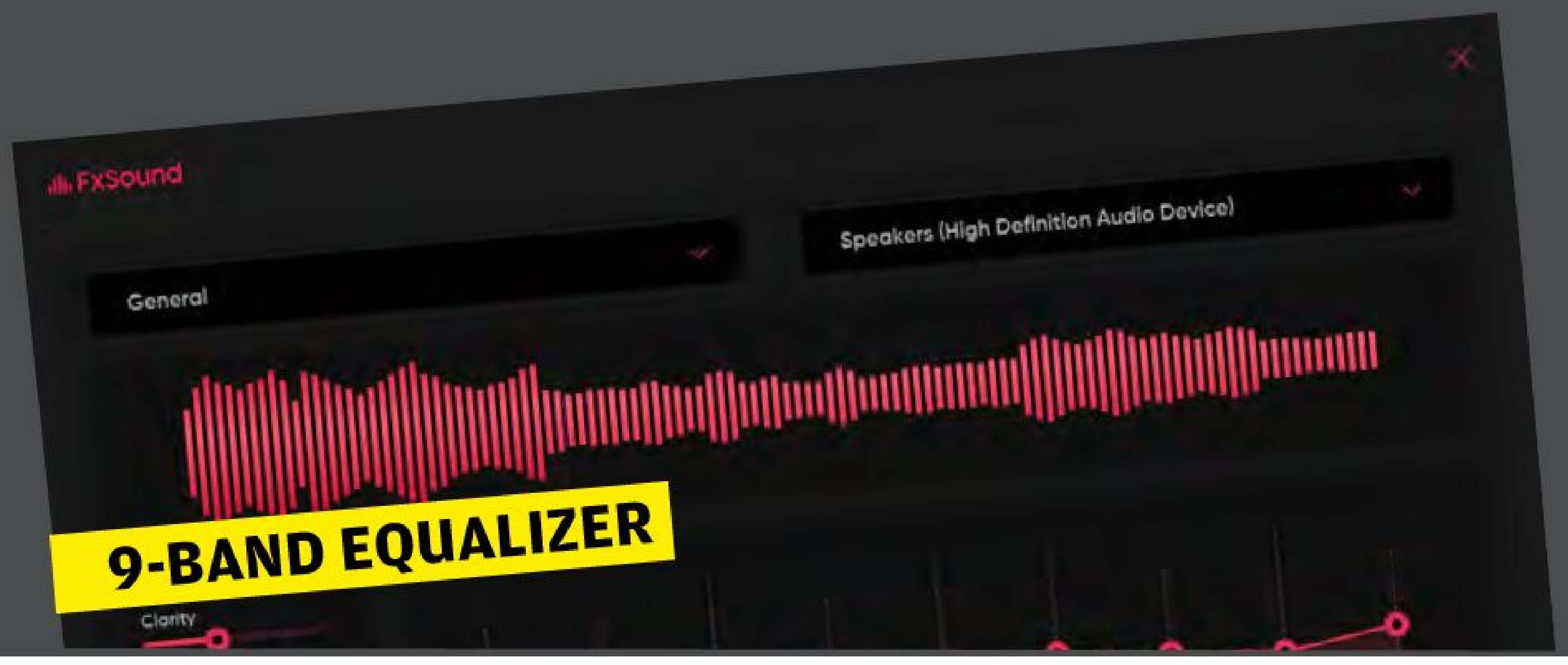
Download: see page 9 | **Info: I plugins4free.com** win


WAVESHAPER IN SONNOX STYLE
Inflator
In
Split
Effect
IN
FX
OUT

JS Inflator

Many people will be familiar with the Sonnox Inflator, a waveshaper that can create a lot of distortion. The clone JS Inflator, whose distortion curve can be controlled with Curve, behaves in a similar way.

Download: see page 9 | **Info: github.com/Kiriki-liszt** win | mac

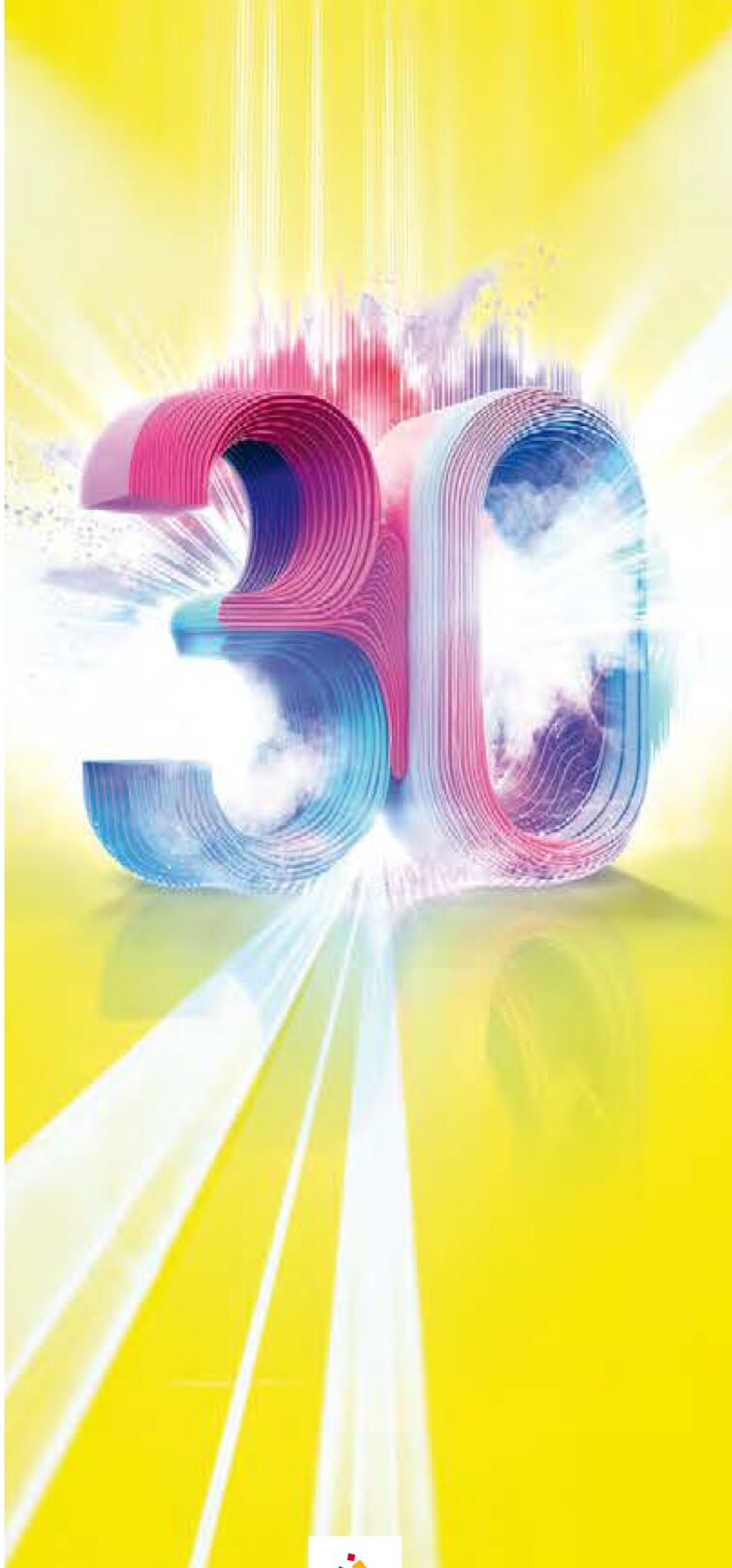

9-BAND EQUALIZER
FxSound
General
Speakers (High Definition Audio Device)

fxSound

Behind fxsound is a fine effects tool that emphasizes your basses. The open source tool is a 9-band equalizer for mixing and mastering with a good selection of presets.

Download: see page 9 | **Info: fxsound.com** win

messe frankfurt



prolight+sound

8. – 11. 4. 2025
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Artificial intelligence is becoming an indispensable tool in music production. But which tools are really helpful? In our big special, you'll learn which AI tools you should know and how to integrate them into your creative workflow - whether in songwriting, mixing, sound design or writing lyrics. In workshops, we'll also show you how to work more efficiently with tools like SUNO, Musicfy, AIVA and Vocoflex without losing your own musical style. **From page 18**

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Make your studio more valuable! This month there's more than 18 GB of plug-ins, sounds and samples for your tracks.

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Modal's new flagship: flexible sound generation and independent digital sound.
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Foto: Alvaro Ariso

Portrait: Jordan Rudess

Dream Theater has been synonymous with sophisticated progressive rock, metal and avant-garde sounds since 1985. The five New York musicians play as delicately as if they came from another universe. For the new album "Parasomnia", we spoke to keyboardist Jordan Rudess about the creative process, virtuosity, music technology, software and AI. Page **38**

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EDM

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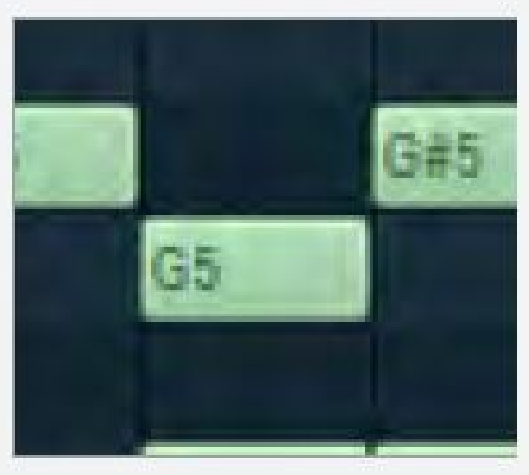

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Beat

AI MASTERCLASS

24 TOOLS FOR VOCALS, BEATS & INSPIRATION HOW TO GET THE BEST OUT OF SUNO, AIVA & CO.

The common thread: Beat magazine 04/2025

For many years, Beat has been inspiring its readers not only with practical and musical topics, but above all with the tight integration of editorial content. From the very beginning, Beat has been about creating, about the structured building of ideas and the common thread – in the magazine as well as in the tracks. This navigator shows you the highlights of this issue andallows you to see the big picture.

AI MASTERCLASS

24 TOOLS FOR VOCALS, BEATS & INSPIRATION
HOW TO GET THE BEST OUT OF SUNO, AIVA & CO.

Artificial intelligence – My creative co-pilot!

Special: AI Masterclass

Artificial intelligence is becoming an indispensable tool in music production. But which tools are really helpful? In our big special, you'll learn which AI tools you should know and how to integrate them into your creative workflow – whether in songwriting, mixing, sound design or writing lyrics. In workshops, we'll also show you how to work more efficiently with tools like SUNO, Musicfy, AIVA and Vocoflex without losing your own musical style. **From page 18**

Test: Behringer LM DRUM

Test: Behringer LM DRUM

What do you get when you cross a classic drum machine with a modern groovebox? Behringer shows us with the LM Drum. A must-buy for fans of the classic Linn drum sound? **Page 65**

IK Multimedia Dyna-Mu

Manley legend gifted!

Free: IK Multimedia Dyna-Mu

This month you can look forward to a very special software highlight: a faithful emulation of the legendary Manley Vari-Mu Compressor/Limiter! IK Multimedia Dyna-Mu provides warm, musical compression and is particularly suitable for gluing together signals on Bus Tracks. This high-end tube dynamics processor can also enhance instruments and vocals with a professional and warm vintage sound! **Page 44**

Portrait: Jordan Rudess (Dream Theater)

Virtuoso with a love for technology

»Personally, I approach music with the mindset of a classical composer.«

Portrait: Jordan Rudess from Dream Theater

Since 1985, the name Dream Theater has been synonymous with one of the most sophisticated bands that Rock Music has to offer. So we took the opportunity to get an interview with keyboardist Jordan Rudess in light of the new album „Parasomnia". He is not only considered a proven virtuoso on his instrument, but also has a great interest in music technology, software and AI. **Page 38**

Test: Modal Electronics Carbon8

Test: Modal Electronics Carbon8

The new Modal flagship combines various elements of the Argon 8 and Cobalt 8 and impresses with flexible sound generation with "analog" digital sound with a lot of independence. **Page 68**

Beat

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Magazine

by Carl-Philipp Schmeller

More effects for stage piano from Nord

Nord announces the Nord Piano 6, its new portable stage piano, both as a 73-key and 88-key model. The dual-layer technology has been used since the 5th generation and is continued with the Nord Piano 6. This means that the keyboard instrument has two independent piano layers and two independent sample layers. Each layer now has faders with LED volume indicators. The piano section can be played 120 times polyphonically. The keyboard relies on the hammer action and there is a triple sensor per key for the keystroke. The effects have been significantly upgraded. From now on, each layer can access its own effect sections and provide a rich sound thanks to Unison. New effect processors have also been added: Spring Reverb, Spin, Filter, Flam, Ping Pong for the delays and a compressor. The memory capacity is two GB for pianos and one GB for samples.

The Nord Piano 6, which is designed to be suitable for both the stage and the studio, will be available from May 2025. The model will be sold for 3399 euros (73 keys) or 3799 euros (88 keys).

nordkeyboards.com I sound-service.eu

More info

Bitwig's audio interface with CV connections

Premiere at Bitwig! For the first time, the Berlin-based company is presenting hardware, specifically the Connect 4/12 audio interface, which can also be considered a DAW controller. It is optimally matched to the in-house DAW for studio and live applications. In addition to the three transport functions, the user interface mainly consists of a large stepless rotary control and six buttons below it. The connectivity of the four inputs and twelve outputs is what makes the Connect 4/12 so special. This is mainly due to two of the inputs, which are DC-connected, and four of the outputs, which are recommended for CV-controlled modular devices. The resolution of up to 192 kHz and 24 bits ensures professional sound quality. Bitwig mode enables optimal and precise interaction between hardware and software, whether for writing automation, fine-tuning settings or navigating the Bitwig Studio timeline. The interface also adapts to your DAW's color settings. The connection to the computer is made via USB.

Bitwig Connect 4/12 should be available in spring 2025 for 499 Euros.

bitwig.com

More info

In-Ear Monitoring for stage and studio from beyerdynamic

beyerdynamic has launched four new models (DT 70 IE, DT 71 IE, DT 72 IE and DT 73 IE) for in-ear monitoring for professional musicians and sound engineers. The in-ear headphones are all equipped with the dynamic TESLA.11 driver system, which is designed to ensure clarity, low distortion and maximum sound pressure levels of up to 137 dB. The DT 70 IE is specified for mixing and critical listening and is particularly recommended for live sound engineers. The DT 71 IE is optimized for drummers and bassists due to its powerful bass foundation, restrained mids and strong treble profile. The DT 72 IE is tailored to the needs of guitarists and singers. For pianists, keyboardists and orchestral musicians, the DT 73 IE are recommended due to their linear bass and mid-range reproduction between 20 Hz and 1 kHz. The in-ear headphones are also said to provide optimum sound insulation of up to -39 dB and have an ergonomic design and compact construction.

The models are expected to be available from March for 499 euros each. The market launch will take place in collaboration with the Martin Miller Session Band.

beyerdynamic.com

More info

TASCAM
DR-07XP
TASCAM
DR-05XP

Stereo microphones with Tascam in pocket format

With the DR-07XP and DR-05XP, Tascam presents two portable handheld recorders. The 2-channel recorders are ideal for music recording, meetings, dictation and video dubbing. Thanks to the integrated audio interface and the 2-in/2-out USB-C connection, both models can be used to record directly to a computer. The recordings can also be archived directly on a microSDXC memory card.

The DR-05XP has an omnidirectional condenser microphone, while the DR-07XP is equipped with a stereo cardioid condenser microphone that can be used for either AB or XY configurations. The DR-05XP allows a maximum sound pressure level of 125 dBSP, greatly reducing the risk of clipping. Under the hood, both models use 32-bit float technology and a sample rate of 96 kHz. Both recorders include a tuner and six different reverb effects.

The DR-05XP will be sold at a price of 137 euros, while the DR-07XP will cost 179 Euros. A delivery date is not yet known.

More info

tascam.eu

High-end studio monitors from Focal

Utopia is the new flagship of the French studio loudspeakers from Focal.

The two passive high-end monitors should appeal to mixing and mastering engineers in particular. There is the Utopia Main 112, which consists of a 5-inch midrange driver and a 1.5-inch tweeter, as well as a 13-inch woofer. In addition, there is the large Utopia Main 212, which boasts a double 13-inch subwoofer and the same tweeter and midrange drivers as the Main 112. Both models are also identical in terms of the frequency spectrum of 28 Hz - 40 kHz. The maximum SPL value of 120 dB for the Main 112 differs from that of the large model, which is 123 dB. Particularly noteworthy on the new monitors is the M-diaphragm, which ensures a first-class dynamic range and the avoidance of resonances. There are also equalizers and filters for optimum sound results.

The horizontally and vertically adjustable monitors, which can also be mounted on the wall if desired, can now be ordered from specialist retailers. While the Utopia Main 112 is sold as a pair for 26,000 euros, the Utopia Main 212 pair will cost an impressive 46,000 Euros.

More info

focal.com

freqtube
freqport
Softube

The error devil was at work: Softube & Freqport

Two mistakes were made in the last two issues that we would like to correct. In Beat 02/25, we tested the FreqTube FT1 from Freqport and mentioned the existing latency without revealing the exact value. The paragraph on this fell victim to the shortening of the article. This important information was missing:

“The installation was surprisingly straightforward: download and install the software, connect FreqTube via USB-C and load the plug-in in the DAW, and that‘s it. In the test, the setup ran parallel to the sound card without any problems, which is not a matter of course under Windows. However, additional latency must be taken into account (approx. 75 ms on our Windows computer)”.

Furthermore, the intro to the Flow Mastering Suite suggests that the software is based exclusively on AI. It should actually read: „Thanks to modern tools like the Flow Mastering Suite with its presets and macro controls perfectly adapted to different music styles, you can now master your tracks in your own studio in just a few steps - and have direct access to the expertise of professional mastering engineers”.

freqport.com | softube.com

Compact studio speaker in white from IK Multimedia

IK Multimedia presents its iLoud Micro Monitor Pro speakers in a white design as a special edition. The very compact 2-way studio speaker has a 3-inch woofer and a 1-inch tweeter with DSP-supported bass reflex. The other technical data is also identical to the series model. Each speaker has a Class D amplifier with 50 watts (RMS), 30 watts for the woofer and 20 watts for the tweeter, along with special drivers and a peak SPL value of over 107 dB. The frequency range extends from 50 Hz to 20 kHz. The portable speakers support the X-Monitor software, which offers complete control over the speaker parameters. The software also invites A/B comparisons of mixdowns. The built-in ARC room correction technology instantly adjusts the monitors to any room, ensuring extremely accurate sound reproduction, even in the smallest rooms.

The iLoud Micro Monitor Pro White cost 279 euros individually or 559 euros as a pair. There is also a multi-channel bundle with 11 speakers and a measuring microphone for 2799 Euros.

More info

ikmultimedia.com

prolight+sound
8. – 11. April 2025
Frankfurt am Main

Save the Date: Prolight + Sound 2025

Live experiences and education

The 30th Prolight + Sound is coming up and will attract visitors with fresh vibes: MusicOneX with live performances, MixLab for all mixing-related issues, the ProAudio College for further training opportunities in the industry and many other innovations await you from April 8 - 11 in Frankfurt. But the topics "Live Sound" and lectures will also make you sit up and take notice ...

Live Sound Arena: Full sound at the Prolight + Sound

The Prolight + Sound 2025 in Frankfurt am Main promises to be another special experience for the Event Technology sector this year. The Live Sound Arena in the outdoor area of the trade fair will once again be a particular highlight - and interest is huge: the arena is already fully booked. The Live Sound Arena offers the perfect stage for high-performance PA systems. This is where renowned manufacturers present their latest innovations - under realistic conditions. Outdoor demonstrations make it possible to experience the sound performance in an environment that simulates live events. This unique platform enables trade visitors to experience the capabilities of modern sound systems first hand.

A particular focus is on the realistic simulation of concert and event conditions. This gives trade visitors valuable insights into how various systems perform in practical scenarios. From wide-ranging line arrays to selective sound reinforcement solutions - the variety of demonstrations in the Live Sound Arena offers a unique comparison.

Technological Highlights of the Arena

Among the companies represented in the Live Sound Arena are some of the leading names in the industry. Manufacturers such as Harmonic Design, DAS Audio, Steinigke, Celto, HK Audio, KV2 Audio, Voice-Acoustic, Aura Audio, RCF, Wharfedale Pro and TW Audio/Ambo will be presenting their latest technologies. These companies demonstrate how modern audio solutions can be optimized for different applications, from large concerts to smaller event formats.

The Live Sound Arena is the ideal place to discover the latest developments in audio technology. You can expect:

- Innovative PA Systems: State-of-the-Art speaker systems that prioritize both sound quality and energy efficiency.
- 3D Audio: Spatial Sound Technologies that create immersive listening experiences.
- Wireless Audio Systems: Flexibility and Mobility for Live Events.
- Sustainable Concepts: Manufacturers present environmentally friendly solutions that are not only acoustically, but also ecologically convincing.

The Live Sound Arena is the ideal meeting place for anyone who wants to experience professional audio technology in action. The fact that the arena is fully booked underlines its importance for the industry and the appeal of Prolight + Sound as an international meeting place for event technology. At the same time, the numerous video presentations also offer exciting insights for those who cannot be on site.

Visitors shouldn't miss the opportunity to discover the latest trends in live sound. Further information, tickets and video content can be found on the official Prolight + Sound website at https://prolight-sound-blog.de/live-sound-arena-2025/

Keynotes and Lectures at the Prolight + Sound 2025

Prolight + Sound from April 8th to 11th is fast approaching. One of the core elements of the trade fair is the Keynote and Lecture Program, in which top-class speakers share their expertise on industry-relevant topics – from Sustainable Event Concepts to Technical Innovations and Creative Visions. We present an excerpt here ...

Tuesday (8th April): AI Revolution, Women‘s Power and Sustainability

On the Main Stage, the program starts with a Keynote speech by Dr. Uve Samuels, CEO and founder of the Exponential Innovation Institute. In “AI: The Stage is Yours”, the renowned expert will show how Artificial Intelligence is revolutionizing customer experiences in the event industry. He presents success patterns and current developments and provides insights into how companies can develop and scale their own AI products.

The joint Keynote speech “Women in Technical Professions or Women Power” by Yasi Hofer (guitarist, including for Helene Fischer), Anouk Wipprecht (internationally renowned fashion tech designer) and Linnea Ljungmark (MD-Entrepreneur, ‚Women In Lighting‘ Ambassador) offers concentrated female power. In their presentation, they will share their experiences as women in a male-dominated industry and set an important example for diversity and equal opportunities in the event industry.

Guy Bigwood, CEO of the Global Destinations Sustainability Movement, addresses innovative concepts for sustainable event planning in “Strategies for Sustainable Events”. His Keynote speech will provide practical suggestions for green event strategies.

Wednesday (9th April): Immersive Experiences, Lighting Design, Film Production and Multitech

How can meaningful, immersive experiences be created? In “Entertaining Change”, Sven Ortel, Professor of Practice at Arizona State University, explores innovative concepts for merging technology and storytelling. From his work as a Designer and Educator, he presents possible solutions and discusses how to prepare the next generation of event makers for success.

A highlight for film enthusiasts is the presentation by Dr. (rer.pol.) Michael Neubauer, M.A. Audiovisual Authors Alliance. In “The Future of Film and Television Production in Germany”, he analyzes current trends and future prospects in the industry.

The Dutch Fashion Tech Designer, Anouk Wipprecht, inspires worldwide with her innovative creations. In her Keynote speech “Multitech & Robotics” on the Theatre Stage, she will provide insights into her internationally acclaimed and exhibited works, in which she combines robotics, sensor technology and interactive design.

Thursday (10th April): Technological Evolution, Theater Lighting and Design Integration

Music lovers can look forward to a lecture by guitarist Yasi Hofer. Her keynote “Guitarist as Show Effect?” is an inspiring reflection on the staging of female Musicians and their role in live performances.

In “Empowering Creativity in the Age of Advanced Technology”, Vickie Claiborne, renowned Designer for Lighting and Digital Media, addresses the question of how the industry can bridge the gap between technological progress and creative talent and highlights possible solutions.

Friday (11th April): Future Prospects and Promoting Young Talent

The Future Talents Day (11 April) focuses on the next generation of the industry. Young talents will gain insights into various job profiles in teh Event Industry and have the opportunity to enter into dialog with Pros.

The complete Keynote and Lecture Program for Prolight + Sound 2025 is available at the following link: https://pls.messefrankfurt.com/frankfurt/de/themen-events/events.html

NAMM
believe in music
The NAMM Show
The NAMM Show
ANAHEIM CONVENTION CENTER
The Music Begins Here
The NAMM Show

NAMM'25 Recap by Hyperactive

The most important new releases at the trade fair

Just like in the best of times: NAMM 2025 was well attended and packed with new gear that numerous manufacturers saved up especially for the event. To make sure you don't miss anything and can keep an eye on the highlights, we present the most important new releases from Hyperactive's brands here - Have fun diving in! by Marco Scherer

ESI Xsynth: The flattest synth in the world?

The biggest hit comes first: ESI presented their Xsynth. The world's flattest synth combines four devices into a compact format and is no bigger than a computer keyboard. The features are impressive: With 10x polyphony, 3 Oscillators, 3 LFOs, 3 AHDSR Envelopes, 16 Modulation Matrix Slots, 3 Effects and EQ, there's a lot in terms of sound. A total of 512 sounds (4 banks of 128 patches each) can be saved.

This configuration also includes a MIDI interface and, as an audio interface, the Xsynth delivers 96 kHz/24-bit quality for inputs and outputs, making it ideal for recording on the road or in the studio. The keyboard and controls are versatile: In addition to the 25 velocity-sensitive keys, there is Polyphonic Aftertouch, an Arpeggiator, Glide, Transpose and Hold functions. Modulation and pitch bend buttons are pressure-sensitive.

The Xsynth allows direct recording of the synth output to the computer and the recording of external signals via Aux In. The MIDI interface establishes the connection to the computer via USB MIDI, while DIN MIDI input and output can be bridged to USB. The package also includes a free Editor App for Mac and Windows.

The price for the Xsynth will be announced later. The release is planned for Summer 2025.

More Info

esi-audio.de

A lot of power in the smallest space: New ESI audio interfaces

The Amber series from ESI is growing: The two audio interfaces, i2 and i4, which are visually similar to the i1 but offer more features, were presented at NAMM.

The Amber i2 is a 2x2 Audio Interface with two microphone inputs and one instrument input. It has 2 Class A microphone inputs on combo jacks, 48 V phantom power, high impedance instrument inputs, 2 line inputs (TRS jack), direct monitor balance control and 2 bidirectional MIDI ports. With a dynamic range of 115 dB and line outputs via 2 x 6.35 mm TRS jacks, the Amber i2 offers the ideal platform for professional applications. The MSRP is 189 Euro.

The Amber i4, a 4x4 audio interface, also offers two Class-A microphone inputs and high-impedance instrument inputs. It extends the functions of the i2 with a total of four line outputs and two headphone outputs. The Amber i4 will be available at an MSRP of 249 Euro.

Both interfaces come with a range of software extras, including Cubasis LE, Wavelab LE and Bitwig Studio 8-Track.

esi-audio.de

Amber i2
Amber i4
MONITORING

More Info

New edition of the nEar monitor series

The ESI nEar i-Series (i5, i7, i8), the direct successors to the legendary ESI nEar studio monitors, offer DSP-controlled Class D amplifiers and newly developed tweeters and woofers designed to provide precise sound and a powerful low-mid range. The Character Selection Switch offers a “Mix & Listen” mode for music enjoyment and a “Reference” mode for analytical monitoring.

The nEar i5 model is a 5-inch nearfield monitor equipped with DSP-controlled Class D amplifiers and a 5-inch woofer, together with a 1-inch silk dome tweeter. With an output power of 50 W and 40 W for LF and HF and a frequency response of 44 Hz - 20 kHz, it delivers impressive sounds. The nEar i5 also offers a high and low frequency shelving EQ, Mix & Listen / Reference Modes and numerous connection options. The MSRP is 149 Euro per unit.

The nEar i7 model, a 6.5-inch nearfield monitor, offers similar features to the nEar i5, but has a larger 6.5-inch woofer and an extended frequency response of 39 Hz - 20 kHz. It also has a slightly higher Sound Pressure Level (SPL) and is larger and heavier with a weight of 5.8 kg. The MSRP is 179 Euro per unit.

The top model in the series, the nEar i8, is an 8-inch nearfield monitor with an 8-inch woofer and an extended output power of 65 W and 55 W for LF and HF. With a frequency response of 35 Hz - 20 kHz and a sound pressure level (SPL) of 100 dB / Peak 104 dB, it delivers impressive audio performance. The MSRP is 229 Euro per unit.

esi-audio.de

More Info

Kurzweil K2061 & K2088 – The legend returns

With the K20 series, Kurzweil introduces an impressive evolution of its iconic K2000 VAST synthesizer. This series represents the culmination of over 30 years of Kurzweil‘s VAST technology development. Combining 32 customizable layers per program, tremendous polyphony and a variety of convenient controls, it enables the creation of sounds.

The K2061 and K2088 differ only in the number of keys (61 and 88), with the K2088 having a hammer-weighted keyboard. Both offer an extensive sound library with over 2000 factory sounds and over 500 Multi-Combinations. With 2 GB of non-volatile flash memory for user samples, it opens up the possibility of accessing a sound library from Kurzweil.

The K20 series features a 6-Operator FM engine, advanced Power Shaped Oscillator technology and studio quality effects. It also features the KB3 ToneReal™ organ emulation and a 2061-key synth action keyboard for a dynamic and responsive playing experience. In addition, they both offer 40 programmable physical Controllers per Multi-Zone, 16 fully programmable arpeggiators and 16 simultaneous MIDI CC Step Sequencers.

Navigating the device is very intuitive, thanks to the bright 4.3-inch color LCD display. With Direct Input and the category browser, users can instantly access or browse sounds, and quickly explore and discover the perfect sound with the Preview function.

kurzweil.com

More Info

Use Hardware as a Plug-in: FreqTube and FreqInOut

freqtube
freqport
freqport FreqInOut

Manufacturer FreqPort is expanding its repertoire with the FreqInOut (“Freakin‘ Out”), but technically remains in line with its debut product FreqTube. Both candidates enable the use of hardware as a plug-in directly in the DAW. The difference: FreqTube provides four tubes in hardware form and offers access to them via the software, while FreqInOut serves as an adapter to any gear in your studio. FreqInOut turns external devices into plug-ins in your DAW.

With FreqTube, you can integrate analog tubes on up to four channels into the DAW and only need a USB cable to do so. Integration as a plug-in is straightforward and ran stably in the test; the equipment with various tubes and additional filters is a practical solution and, depending on the application, there is also audible added value compared to plug-ins. FreqTube is available in stores for around 979 Euro.

FreqInOut FO1 is a hardware interface with 4 audio inputs and outputs that is connected to a computer via USB-C. It allows external audio devices to be seamlessly integrated into the preferred DAW by means of a Hardware Matrix. It’s perfect for those who want to use external gear with minimal effort by removing the complexity of routing and cable configuration, eliminating timing issues when recording and allowing multiple signals to be processed simultaneously. The interface is expandable and allows four or eight additional I/O ports to be added, as well as having a Mid/Side Mode, a Hardware Mix for parallel processing and offers first-class ESS 32-bit converters with support for up to 192kHz sample rates.

FreqInOut will be released at the end of February with an MSRP of 599 Euro.

freqport.com

More Info

Live- & DJ-Gear News

On Stage

by Carl-Philipp Schmeller

Free live sound workshop from HOFA-College

Have you always wondered how to achieve the best possible sound at a live concert or how to plan and carry out a sound check? This is essential for bands and DJs. That‘s why the HOFA-College Distance Learning School for Sound Engineering & Music Production is holding an exclusive workshop on live mixing and sound reinforcement at the Tollhaus event center in Karlsruhe. Experts will share their knowledge of miking, sound checks, monitor and FOH mixes for optimum sound in the audience area. A professional band will provide the right sound examples on stage. Participants will also have the opportunity to ask their questions directly to the lecturers and exchange ideas with others. Participation is free of charge. As places are limited, binding registration for the face-to-face event is required. Alternatively, those who are unable to attend on site can follow the event via livestream.

HOFA-College is one of the leading providers of state-certified distance learning courses with diploma and bachelor‘s degrees in the field of sound engineering and music production.

hofa-college.de

More info

Affordable Bluetooth battle mixer from Omnitronic

Omnitronic presents the new PM-202F and PM-202FX mixing consoles, two innovative 2-channel battle mixers. These robust consoles are designed for mobile DJs looking for an affordable solution for live performances and studio sessions. Both offer four line inputs and two phono inputs, plus an XLR microphone input on the front. On the output side, there are XLR and RCA outputs for the master signal, as well as a recording output. There is also the option to receive Bluetooth signals for channels 1 and 2. The PM-202FX also offers a choice of chorus, reverb, delay, flanger, wah and phase effects. There is one bipolar DJ filter LPF/HPF per channel. Each of the channels has a 2-band tone control. In addition to the channel faders, there is also a crossfader with an adjustable curve. The battle mixers cover a frequency range of 20 - 20000 Hz. Thanks to the compact design, the consoles fit perfectly into any setup and at the same time offer user-friendly operation that appeals to both beginners and experienced professionals.

The PM-202F can be pre-ordered for 159 euros. The PM-202FX will soon be available for 199 Euros.

steinigke.de

More info

Motorized DJ controller from Rane with stem mixing

The new generation of DJ controllers One MKII from Rane shines in all white. the vinyl feeling. One of the most important innovations is the Stems function, which allows you to extract acapella vocal tracks from a song, for example, or to create instrumental versions. This is ideal for live remixes and mash-ups. These stems can be accessed either via the Performance Pads modes or above the jog wheel. The performance pads can also be used to set hot cues, loops and rolls, as well as to fire samples. The 2-channel controller finally also has effects, a whopping 29 plus the software effects from Serato. Serato is also the DJ software that is compatible with the One MKII. Another highlight is the motorization of the jog wheels for a real vinyl feeling. In addition to the line/phono sockets for the channels, two microphones can also be connected as inputs and an additional signal can be inserted via Aux.

The Rane One MKII should be available during the summer of 2025. The expected price is 1300 US Dollars.

rane.com

More info

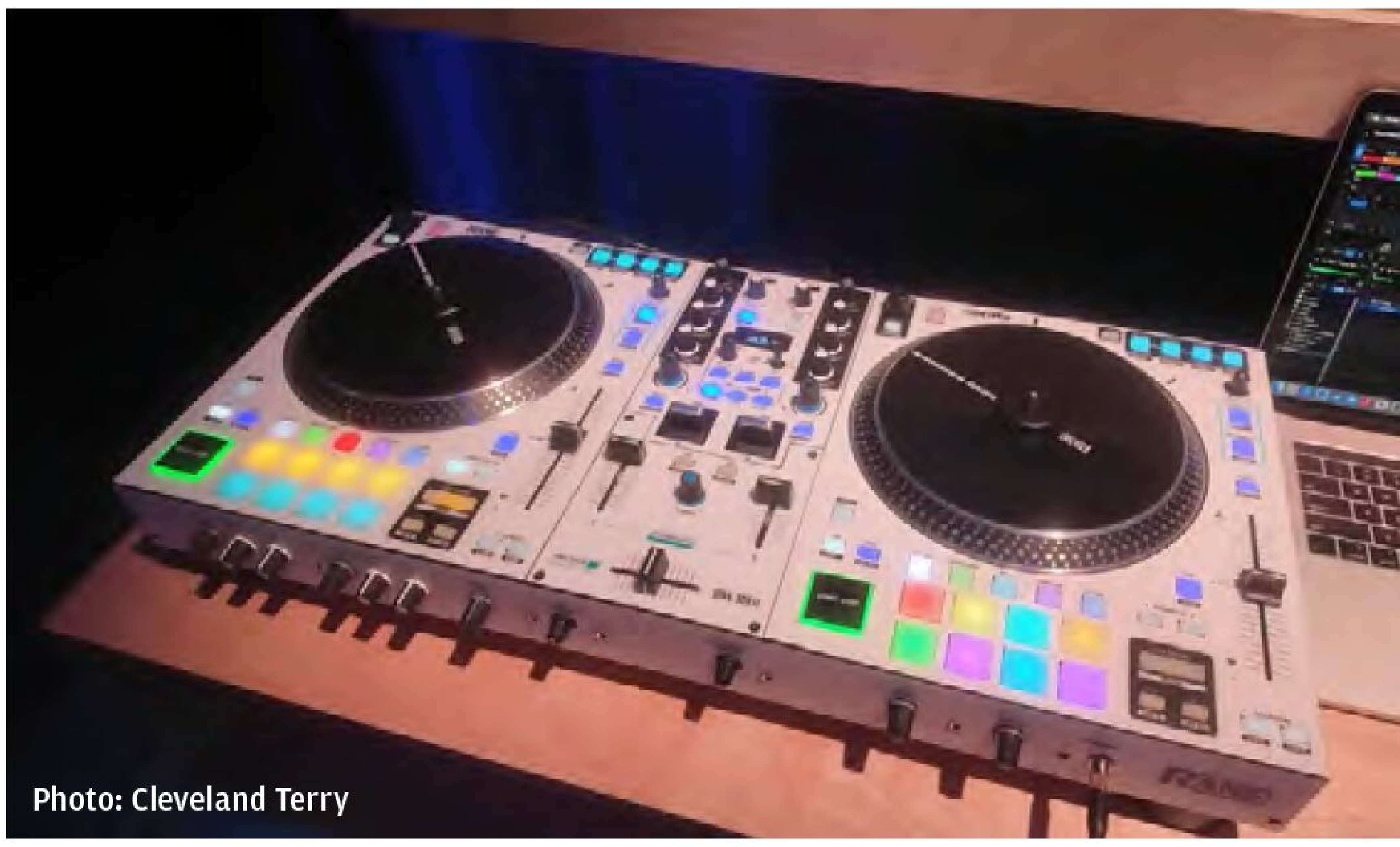
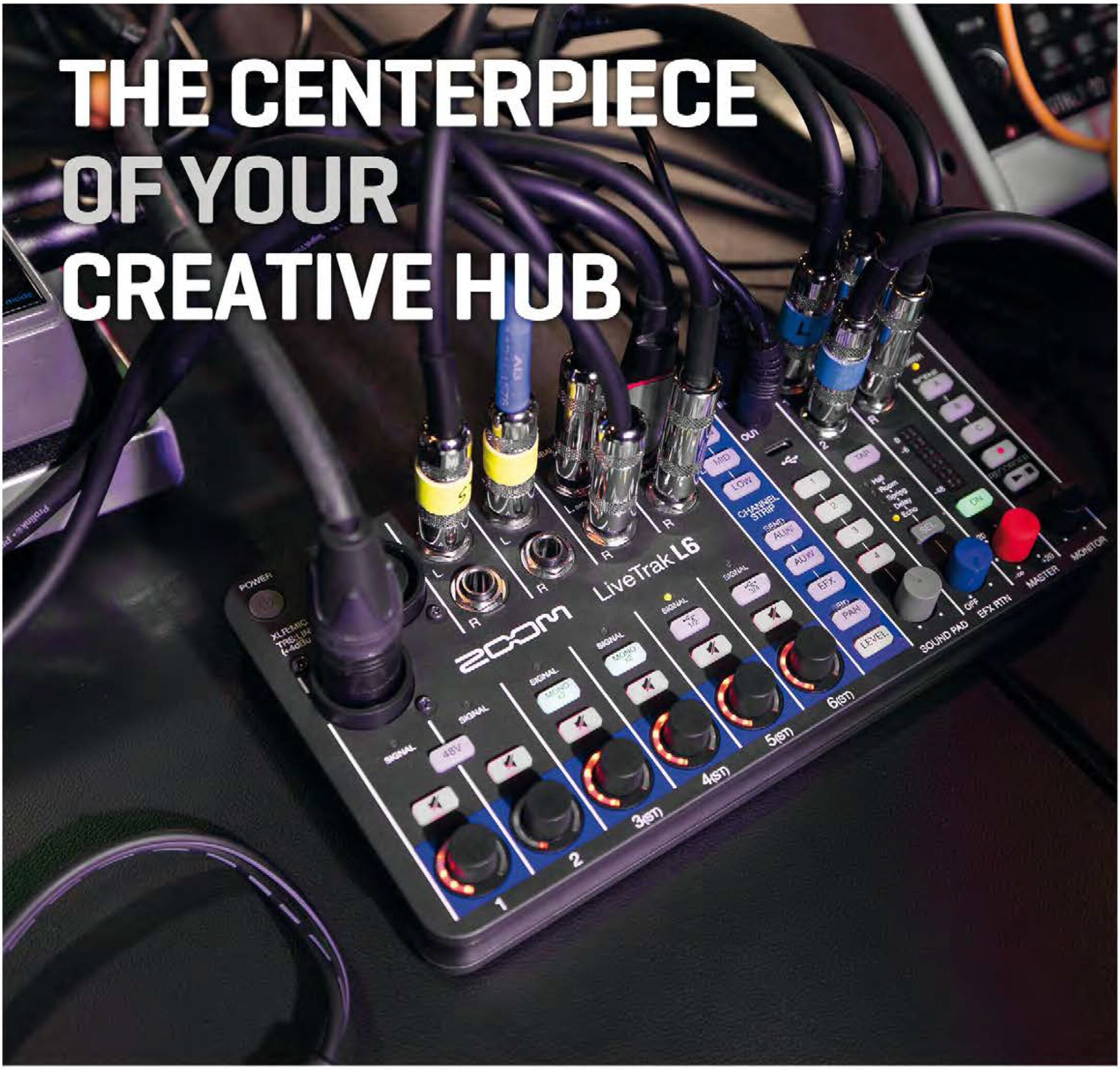


Photo: Cleveland Terry



Introducing the LiveTrak L6
10-Track Digital Mixer / 32-Bit Float Recorder

The LiveTrak L6 is our most compact, portable digital mixing console with a built-in 10-track 32-bit float recorder. With 2 XLR/jack combo inputs, 4 stereo line inputs (2 of which can be used as USB returns), 2 aux sends, internal effects, MIDI and sound/sampling pads, it's perfect for bands, synthesizers, live streaming and more. It can also be battery powered and mounted in a Eurorack with optional rack brackets. The LiveTrak L6 is the perfect center piece for your creative hub.

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MORE SOUND, LESS WORK

AI MASTERCLASS

24 TOOLS FOR VOCALS, BEATS & INSPIRATION
HOW TO GET THE BEST OUT OF SUNO, AIVA & CO.

Artificial intelligence is becoming an indispensable tool in music production. But which tools are really helpful? In our big special, you'll learn which AI tools you should know and how to integrate them into your creative workflow – whether in songwriting, mixing, sound design or writing lyrics. In workshops, we'll also show you how to work more efficiently with tools like SUNO, Musicfy, AIVA and Vocoflex without losing your own musical style.

by Tobias Fischer, Marco Scherer, Mario Schumacher, Vera Schumacher, Christoph Strauß and Jan Wilking

» Artificial intelligence – My creative co-pilot! «

Vincent Lee, sound designer, producer & YouTuber

For me, AI is no longer just a futuristic term, but an essential part of my musical work. In everyday life, I use AI to develop themes for my videos and to optimize my workflow in my DAW Reaper. For the creative development of my instrumentals, I rely on SUNO, which helps me create inspiring vocal melodies. The resulting ideas are then refined in AceStudio - here I adapt melodies and lyrics so that they fit together harmoniously. Audimee takes care of the finishing touches, providing me with the right voice. With this approach, I feel like I have an invisible partner at my side. The human touch always remains at the center - the AI complements and expands my ideas, but in no way replaces them. Rather, this symbiosis of technology and creativity opens up completely new possibilities for me to shape my own sound and constantly push boundaries. Making music with AI definitely allows me to constantly think outside the box.

instagram.com/vincentleemusic | youtube.com/user/vincentleemusic

The biggest revolution in music production since the invention of the DAW is here - and it could change everything. One thing is certain: music production has never been as easy and accessible as it is today. Where expensive studios and years of experience were once necessary, today a laptop and a DAW are enough. But with AI comes an even bigger change: It can build beats, compose melodies and even imitate voices in seconds. Are we experiencing a creative revolution - or is this the beginning of the end of true artistic originality?

Can AI really be creative?

The fear that AI will replace human musicians is omnipresent. But doesn't this discussion remind us of earlier technological leaps? When sampling became popular, many feared the loss of real instrumental recordings. Later, virtual instruments, synthesizers, drum machines and effects devices seemed to mean the end of traditional studios. But both have long since established themselves as extensions rather than replacements. Perhaps it will be the same with AI? It can take over the tedious, technical tasks while producers concentrate more on the artistic idea. But if music is created at the touch of a button, is there still room for human touch, for emotion, experience and individuality? Today's AI models often deliver impressive results, but they are based on existing patterns. Experimenting with completely new ideas remains a human domain - at least for now.

New way of working in the studio

Whether it's songwriting, sound design or mixing - AI tools are no longer a vision of the future. They help to overcome creative blocks, shape sounds and speed up processes. But which of these tools are real game changers and which are just technical gimmicks? On the following pages we present 24 AI tools for songwriting, sound design, mixing and mastering and show you how you can use them creatively. Trance icon Ferry Corsten talks about AI in his workflow, while Thomas Foster, author of the book "Artificial Intelligence in Music and Audio Production", outlines the future of the industry. You can also expect practical workshops and a critical examination of the effects of AI on the music industry.

Opportunities and challenges

In addition to questions about authenticity, there are also questions about copyright, such as who owns the rights to AI-generated music? Can a model be trained with existing songs? And what happens when AI imitates an artist's voice? The music industry is struggling to find answers, while labels and streaming platforms are already trying to make money from this development. In this special, our legal expert Jan Wilking provides insight into the current situation - and the open questions. One thing is certain: AI is here to stay. The question is no longer whether, but only when and how. Whether as a creative assistant or an automated music generator - this special gives you the knowledge and tools to determine for yourself what place AI should take in your musical work.

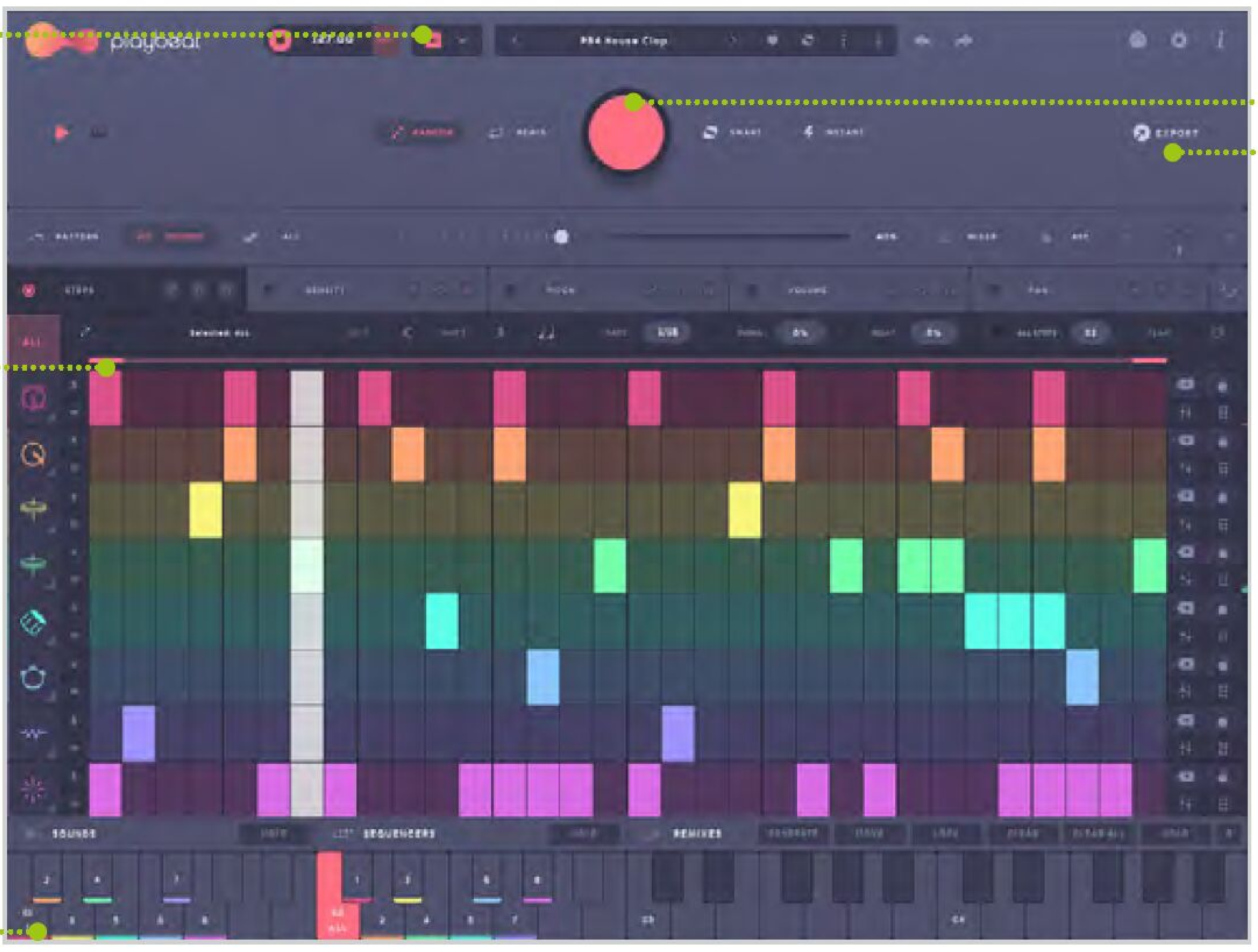
Hands-on: Audiomodern Playbeat 4

Do you want to create fresh, rousing beats in your DAW or on your iPad without spending hours searching for the perfect samples or getting to grips with complicated step sequencers? Then Playbeat is exactly the tool for you! This smart groove machine creates original rhythms in seconds - and thanks to the new AI functions, exactly in your style!

1 | The heart: The sequencer
The center of the GUI is the step sequencer with eight tracks. You can fill these with the included sounds or your own samples. Tip: It doesn't always have to be drums or percussion sounds: Try out short synth basses, effect sounds or found sounds to create crazy grooves.

2 | Play patterns
With the MIDI notes from C1 you can play the sounds individually, while the notes from **C2** trigger the patterns. The **remix** function is also great, with which you can create variations of your groove and select them with the MIDI notes from C4.

3 | Fresh beats in your style
A new highlight is the AI function **Pick a Style**. Specify up to three music styles and generate patterns and sounds from them. To do this, click on the **AI** button and open the browser using the arrow symbol to choose from 35 genres such as Afro, EDM, Hip-Hop or World. Try **Caribbean** and **House**, for example.



4 | The dice are cast!
Use Playbeat's random functions to generate new grooves. Click on the big red button to reroll the active steps as well as **density**, **pitch, volume and pan** - either for all tracks or the selected track. Try out the different random modes.

5 | Get it out into the world!
Have you created a groove that really gets you going? Click on the export button to export the current pattern as an audio or MIDI file. You can even export all audio stems. By the way: If you route the respective sounds to the individual outputs of Playbeat, you can edit them individually with the effects of your choice.

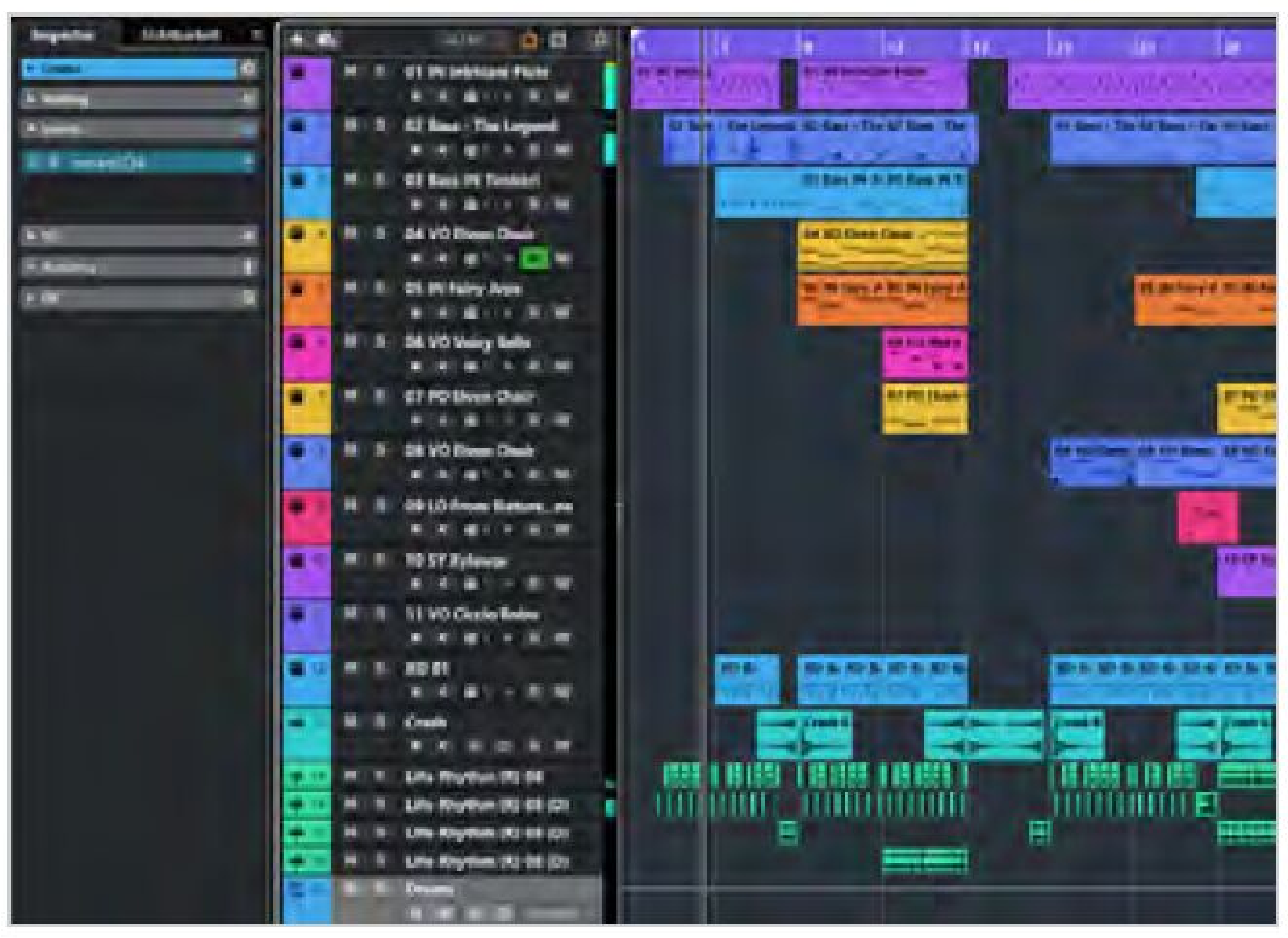
Hands-on: Sonible smart:EQ 4

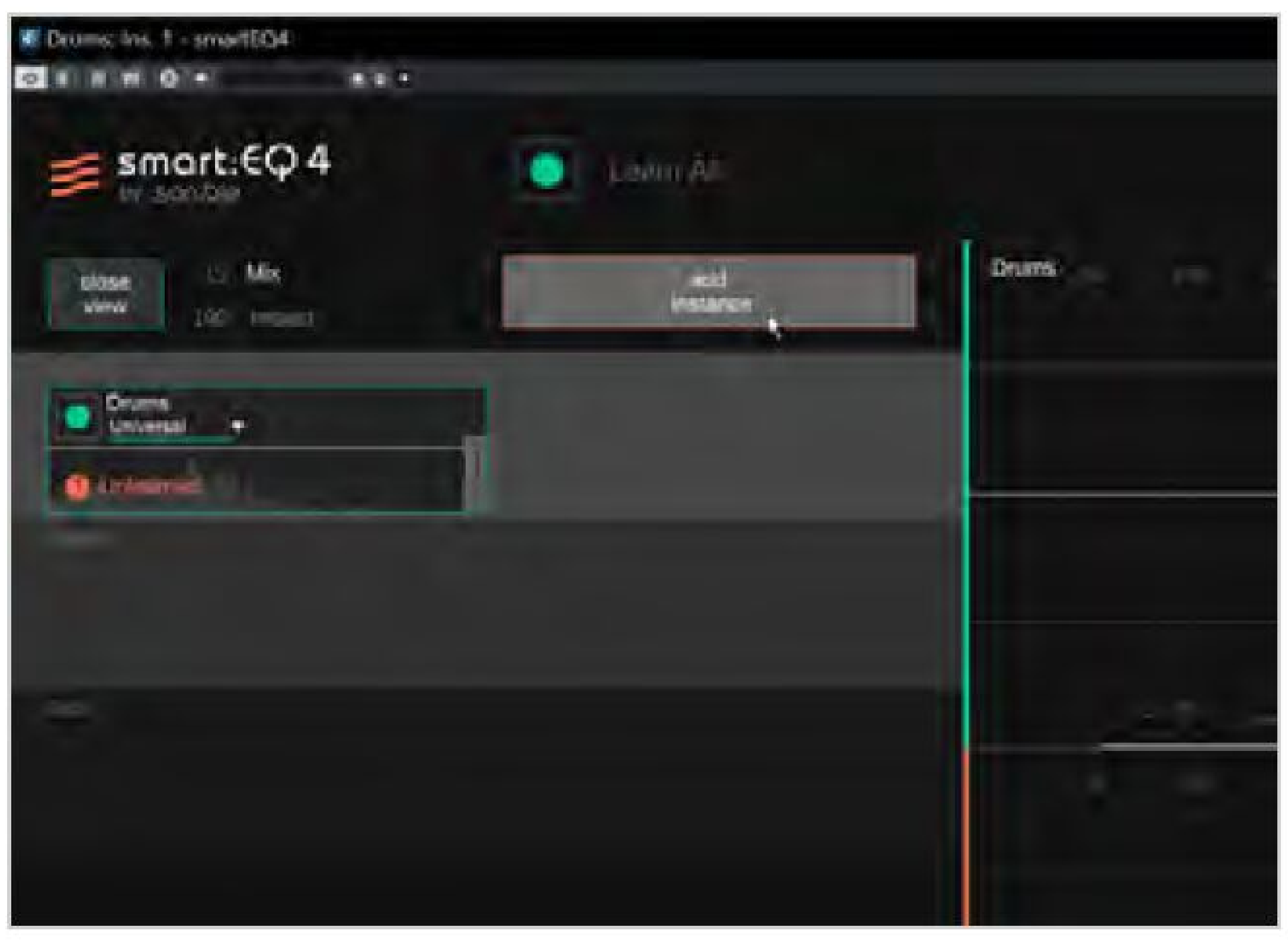
Saving mixes has never been so easy

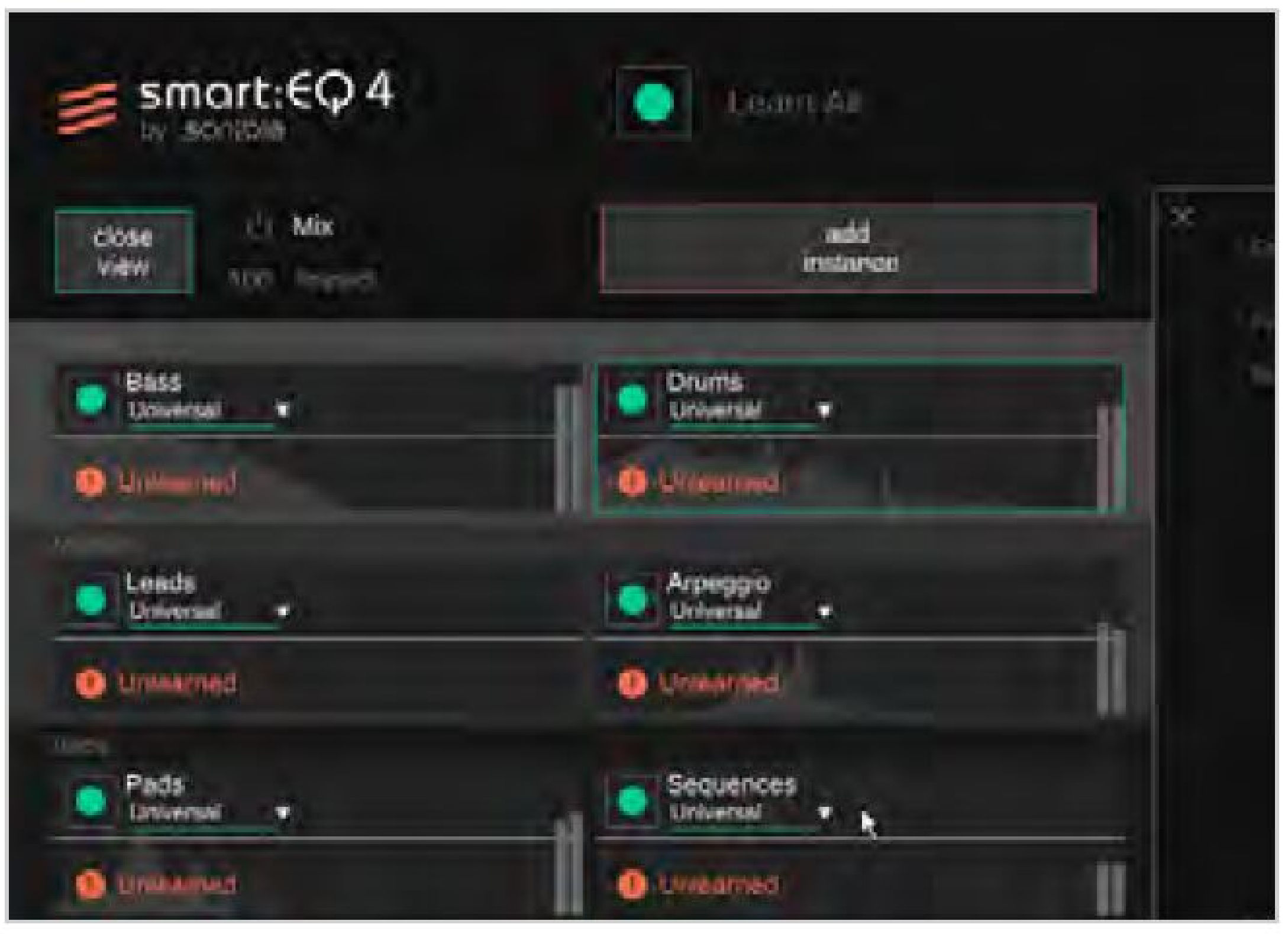
Original

with smart:EQ 4

The perfect mix starts with the right balance - and that‘s exactly what smart:EQ 4 helps you with. Thanks to AI-supported equalizing and intelligent cross-channel processing, you can optimize your tracks with just a few clicks. We‘ll show you how to achieve professional results in no time with this clever tool.




smart:EQ 4
Learn All
close view
Mix
add instance
Drums
Universal
Unlearned


smart:EQ 4
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Learn All
close view
Mix
add instance
Bass
Universal
Drums
Universal
Leads
Universal
Arpeggio
Universal
Pads
Universal
Sequences
Universal
Unlearned

1 Prepare the project

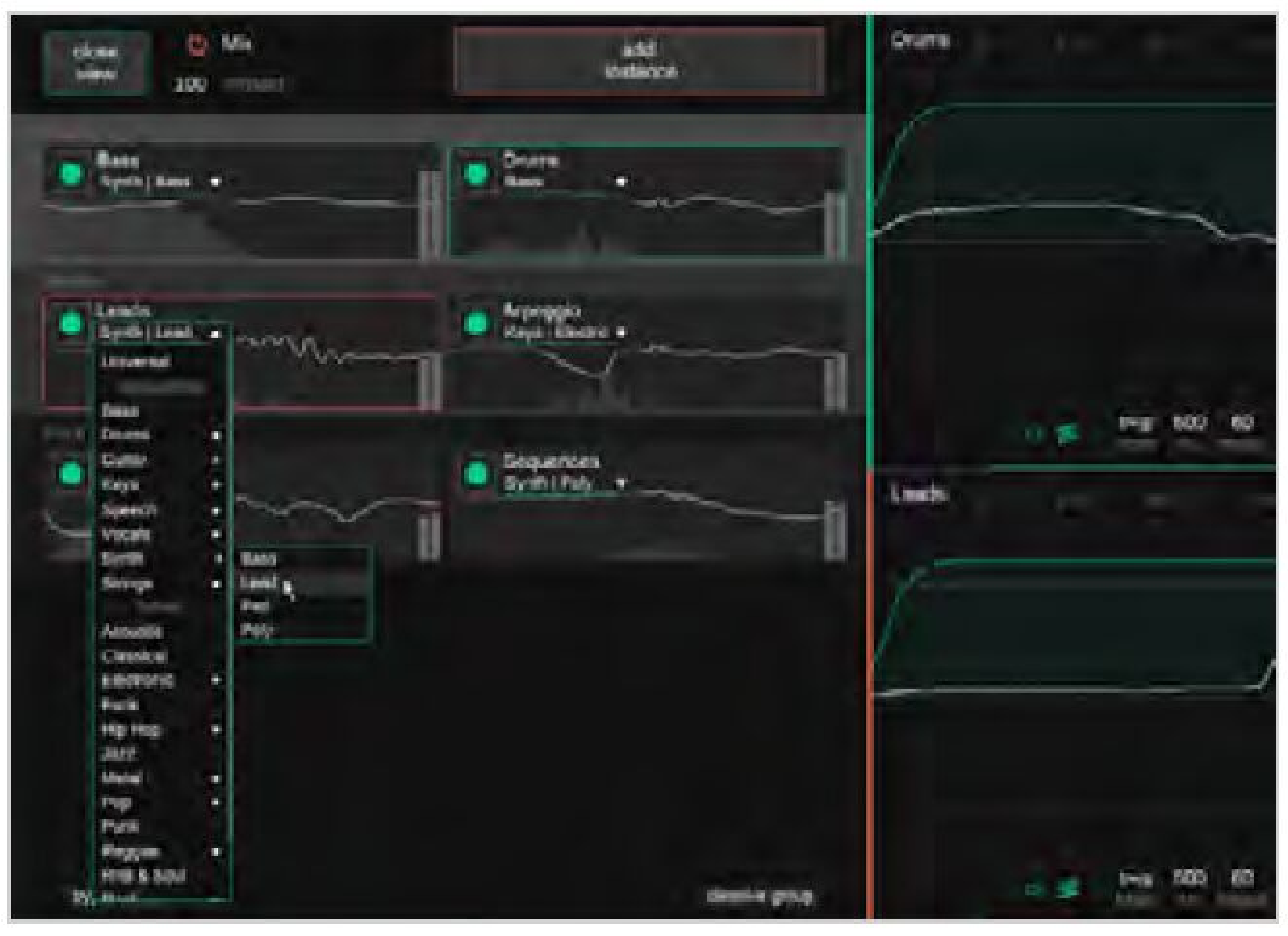
Your mix sounds muddy or unbalanced, no matter what you do? smart:EQ 4 can help you here. First, load a project into your DAW that you want to mix. Then create buses for the most important instrument groups such as drums, bass, guitars, vocals, pads, leads, synths, etc. Load smart:EQ 4 as an insert effect in each of the group tracks.

2 Mix hierarchy

Open the smart:EQ-4 instance of the **drums** and click **add to group**, give the group a name like „Mix“ and click Create. Determine whether the signal from the drums should be in the foreground, middle or background of the mix. Now we **add more instances**. To do this, click add instance and then drag the **bass** instance to **front**, for example.

3 Spotlight

You could place **leads** on **middle** and **pads** on **back**. This way you can put certain instruments (e.g. vocals) in the spotlight of your mix and thereby give them more spectral space and put others in the background. Position all instances as desired. Now select the desired profile for each instance by clicking on the arrow symbol.


close view
Mix
add instance
Bass
Synth | Bass
Drums
Leads
Synth | Lead
Arpeggio
Keys | Electric
Sequences
Synth | Poly
Universal
Bass
Drums
Guitar
Keys
Speech
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Classical
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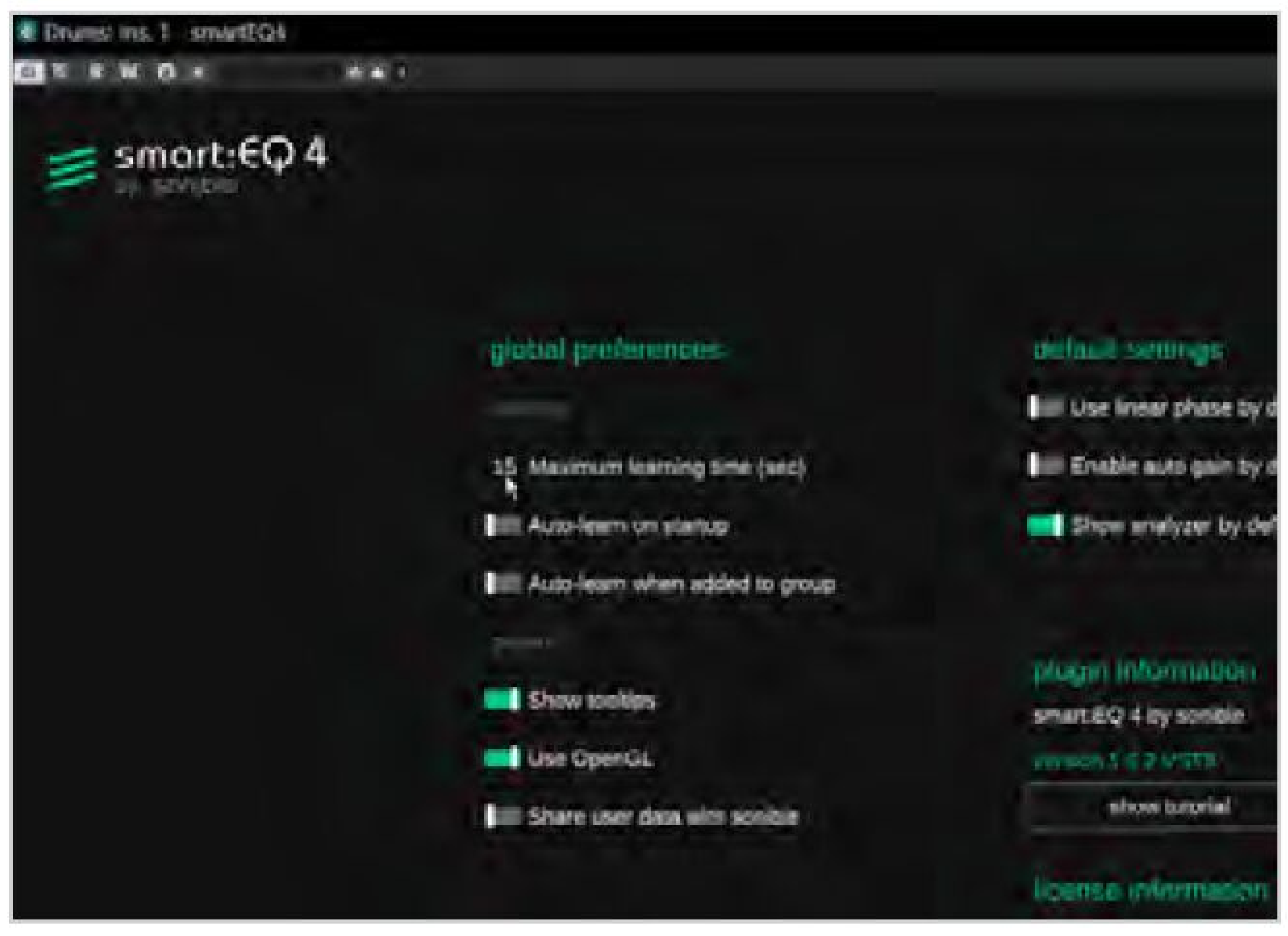
Metal
Pop
Punk
Reggae
Lead
Pad
Poly


smart:EQ 4
by sonible

global preferences

15 Maximum learning time (sec)

Auto-learn on startup

Auto-learn when added to group

Show tooltips

Use OpenGL

Share user data with sonible

default settings

Use linear phase by d

Enable auto gain by d

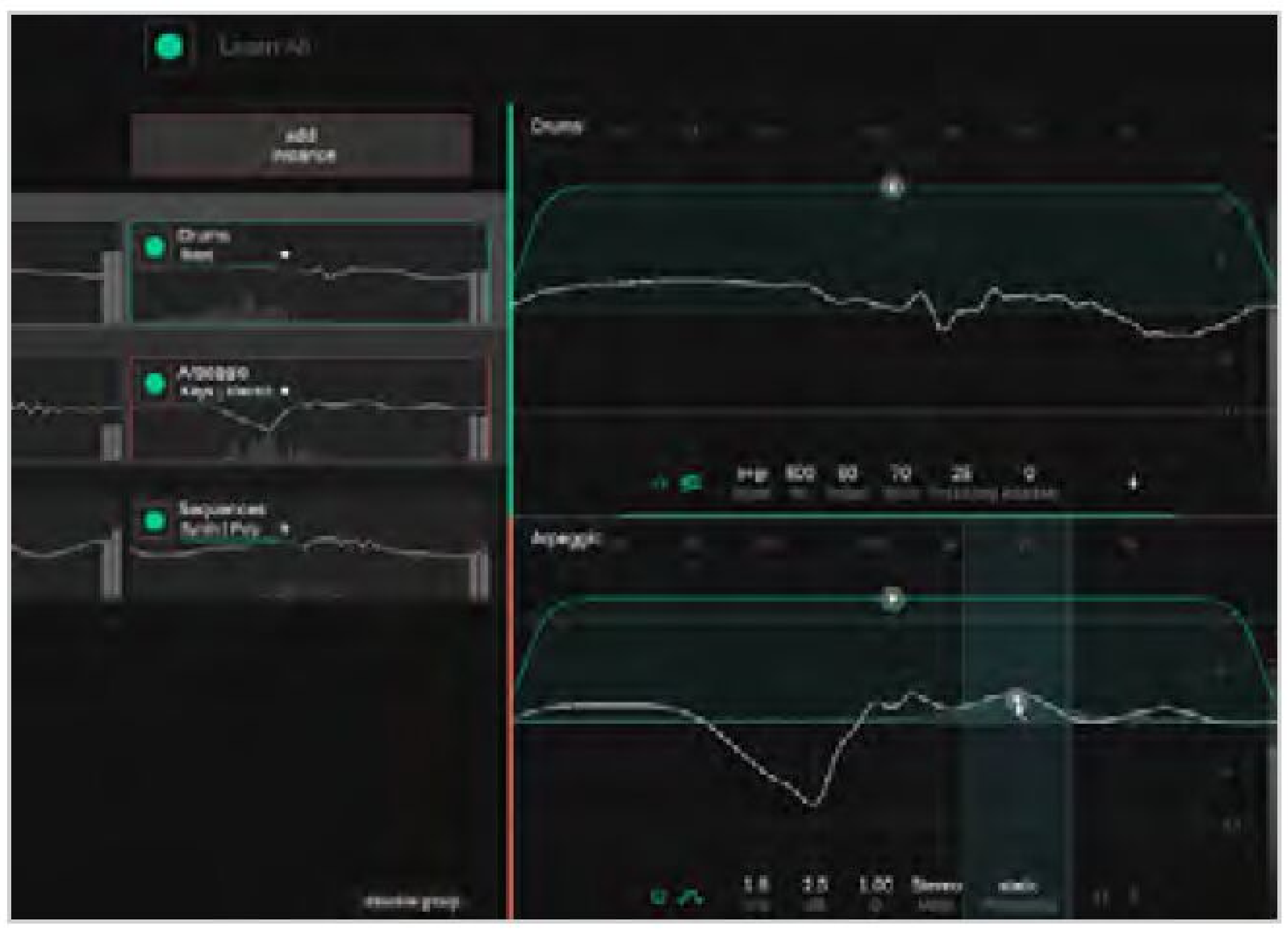
Show analyzer by def

plugin information

smart:EQ 4 by sonible

show tutorial

license information


Learn All
add instance
Drums
Arpeggio
Sequences

4 Select and learn profiles

Universal is suitable for various input signals, specific profiles such as **Drums: Drumset** or **Synth: Bass** optimize individual instruments even more specifically. Now play a part of your Trackr in which all instruments can be heard, such as the chorus. Then click on the green Learn All button. Not all instruments are playing at the same time in your part?

5 Analysis process

You can then analyze them individually by clicking on the respective **Learn** buttons. If necessary, you can set the **maximum learning time** in the settings to a longer value such as 15 seconds. After smart:EQ 4 has analyzed all the signals, it optimizes the spectral balance of the signals and reduces any frequency overlaps.

6 Fine-tuning

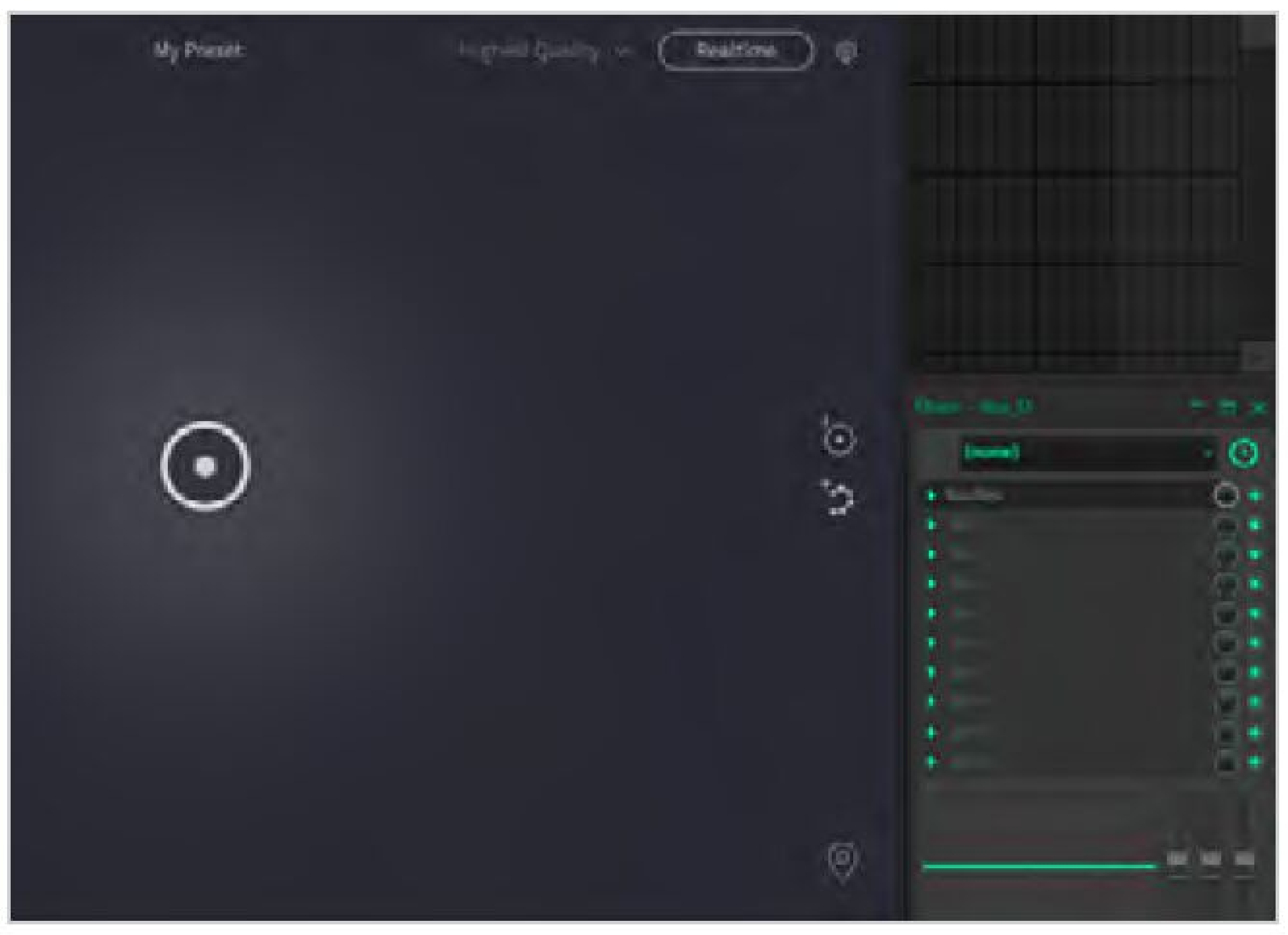
The global **impact** value defines how intensive the processing is. Our track already sounds much more balanced and transparent. You can now adjust the smart:filter settings for each instance to optimize the spectral balance, reduce masking effects and specifically emphasize or attenuate frequency ranges.

Hands-On: Dreamtonics Vocoflex in practice

Sing like the stars

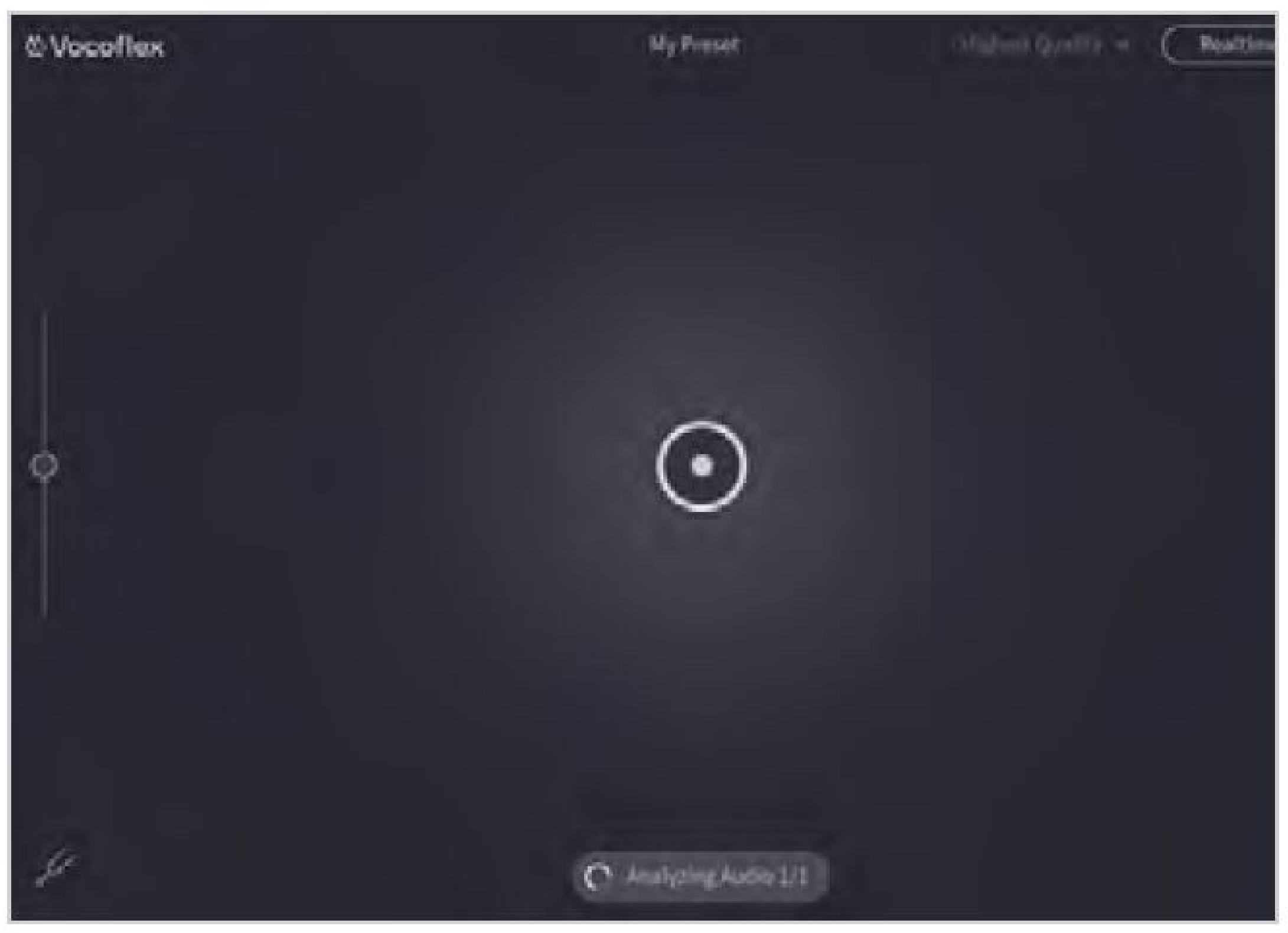
Who hasn't ever wanted to sound like their favorite singer? Thanks to the advance of AI, this is now possible. Vocoflex from Dreamtonics can match voices to a reference and even morph between different vocals in real time. In this workshop, we'll show you the creative possibilities this technology opens up for us.

Audio demo


My Preset
Highest Quality
Realtime

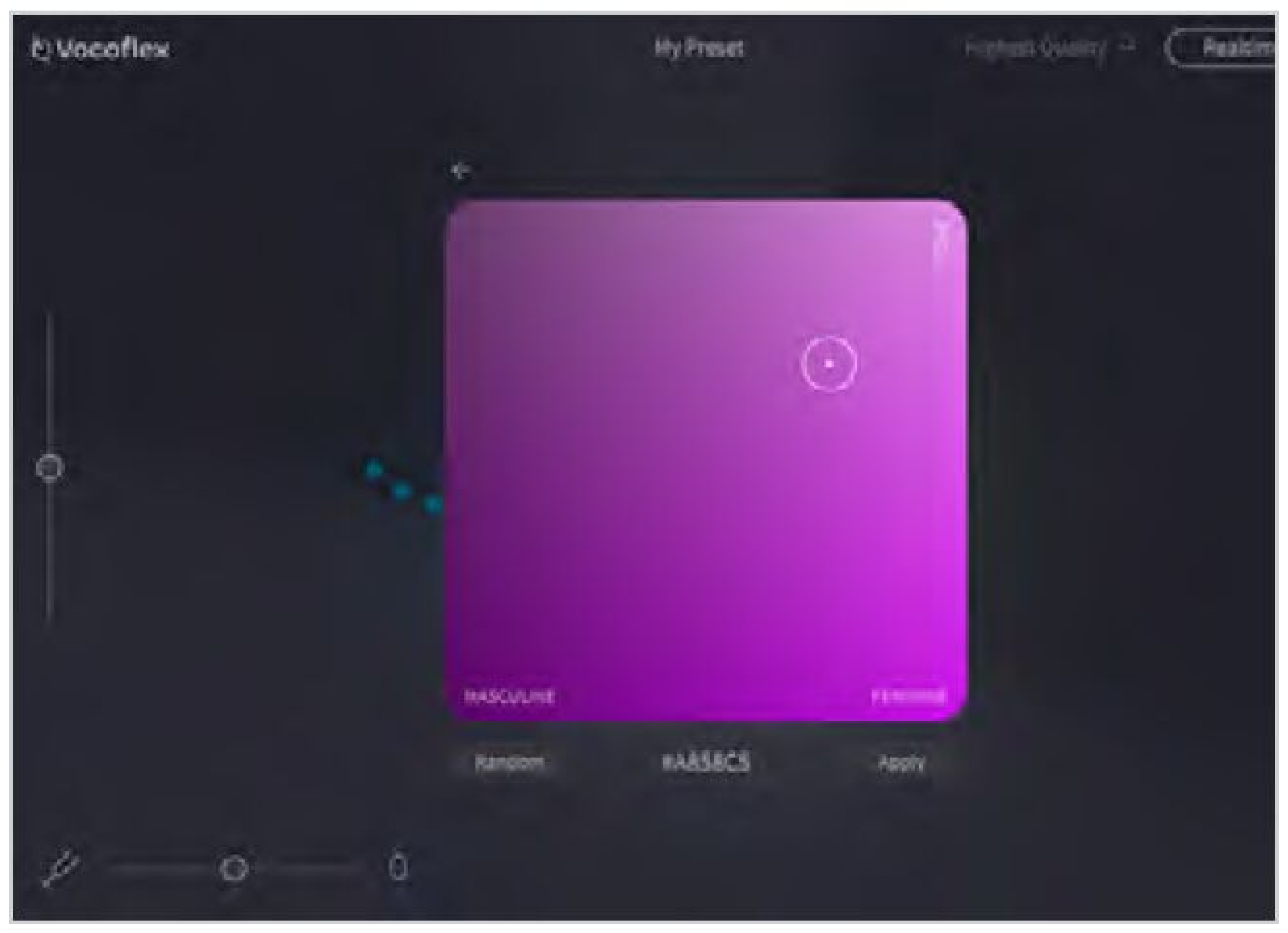
1 Create a vocal track

You need an acapella as a basis. You can sing something yourself, take a sample or use an AI-generated voice. We explained the latter using the Synthesizer V, also from Dreamtonics, in Beat issue 12/2024 [1]. You then insert Vocoflex as a plug-in into an acapella track.


Vocoflex
My Preset
Highest Quality
Realtime
Analyzing Audio 1/1

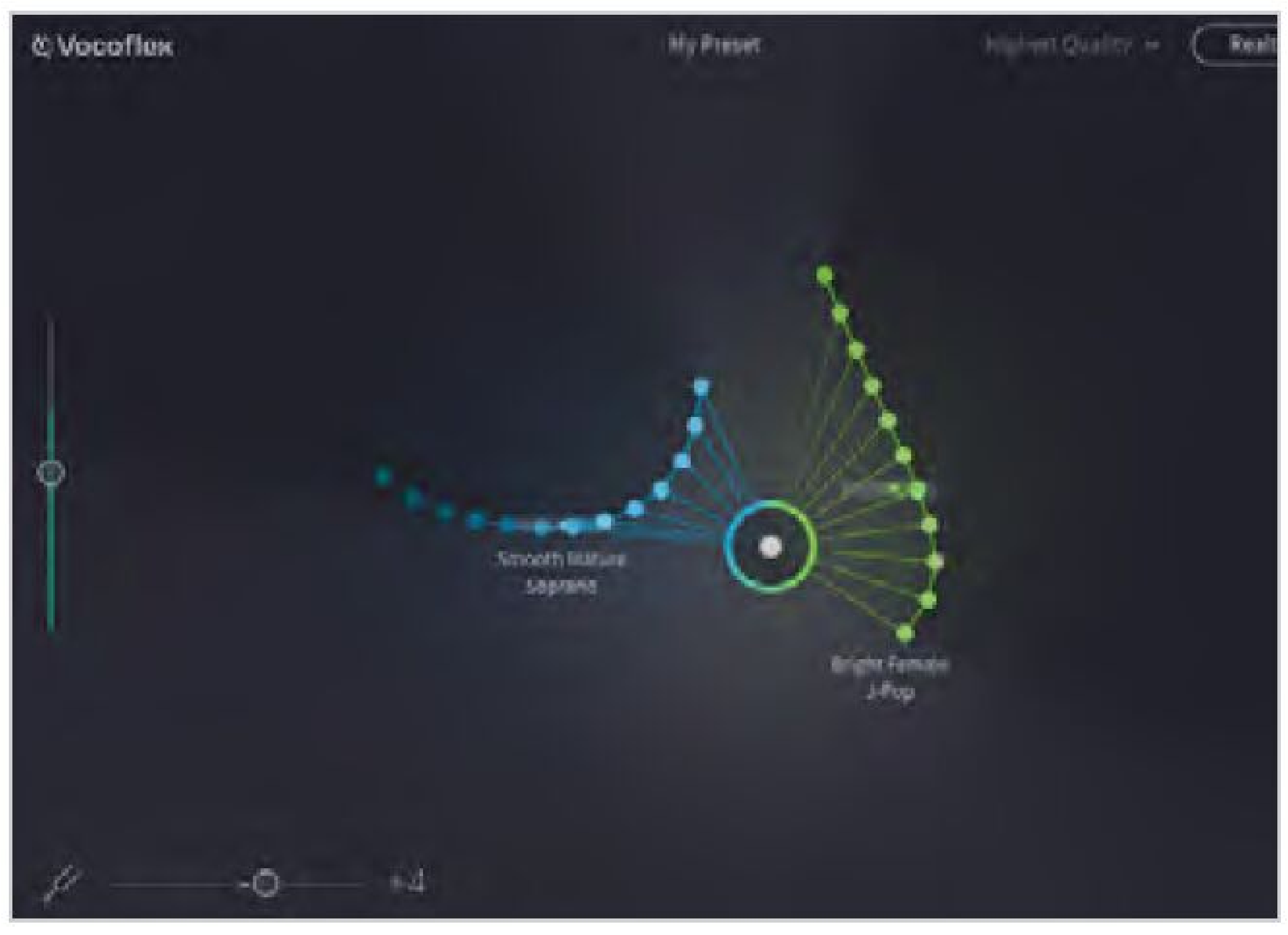
2 Load references

Now drag and drop reference acapellas directly into Vocoflex. The plug-in automatically analyzes each file and then displays it as a chain of dots. The dots visualize the different pitches. Two acapellas are recommended for this workshop, but you can also experiment with more or fewer.


Vocoflex
My Preset
Highest Quality
Realtime
MASCULINE
FEMININE
Random
Apply

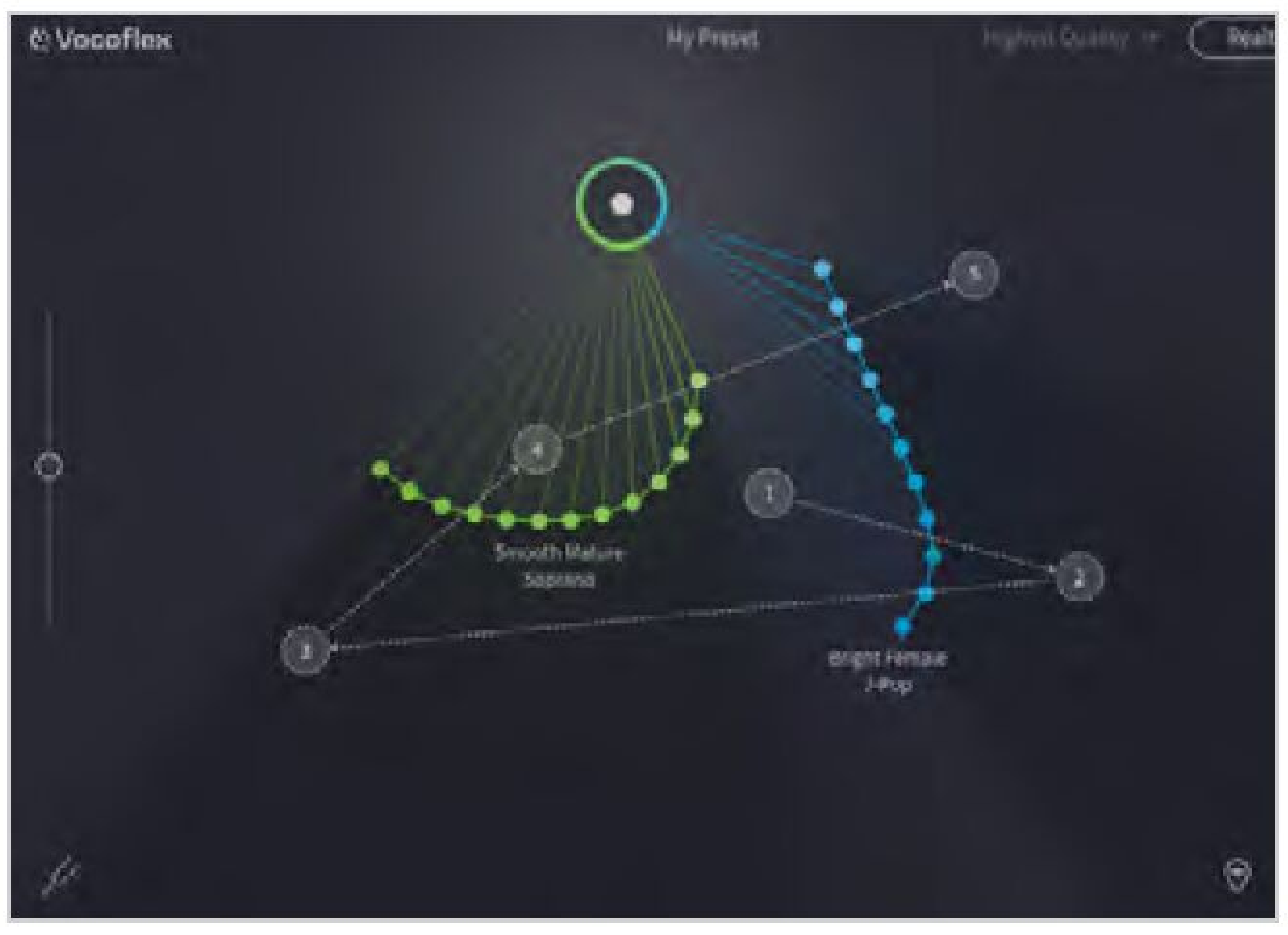
3 Voice generator

If you don't have any reference acapellas available, Vocoflex offers you two alternatives: You can use the extensive selection of internal presets or create completely new voices using the voice generator. You can access the latter using the circle symbol in the middle right.


Vocoflex
My Preset
Highest Quality
Smooth Mature Soprano
Bright Female J-Pop
+4

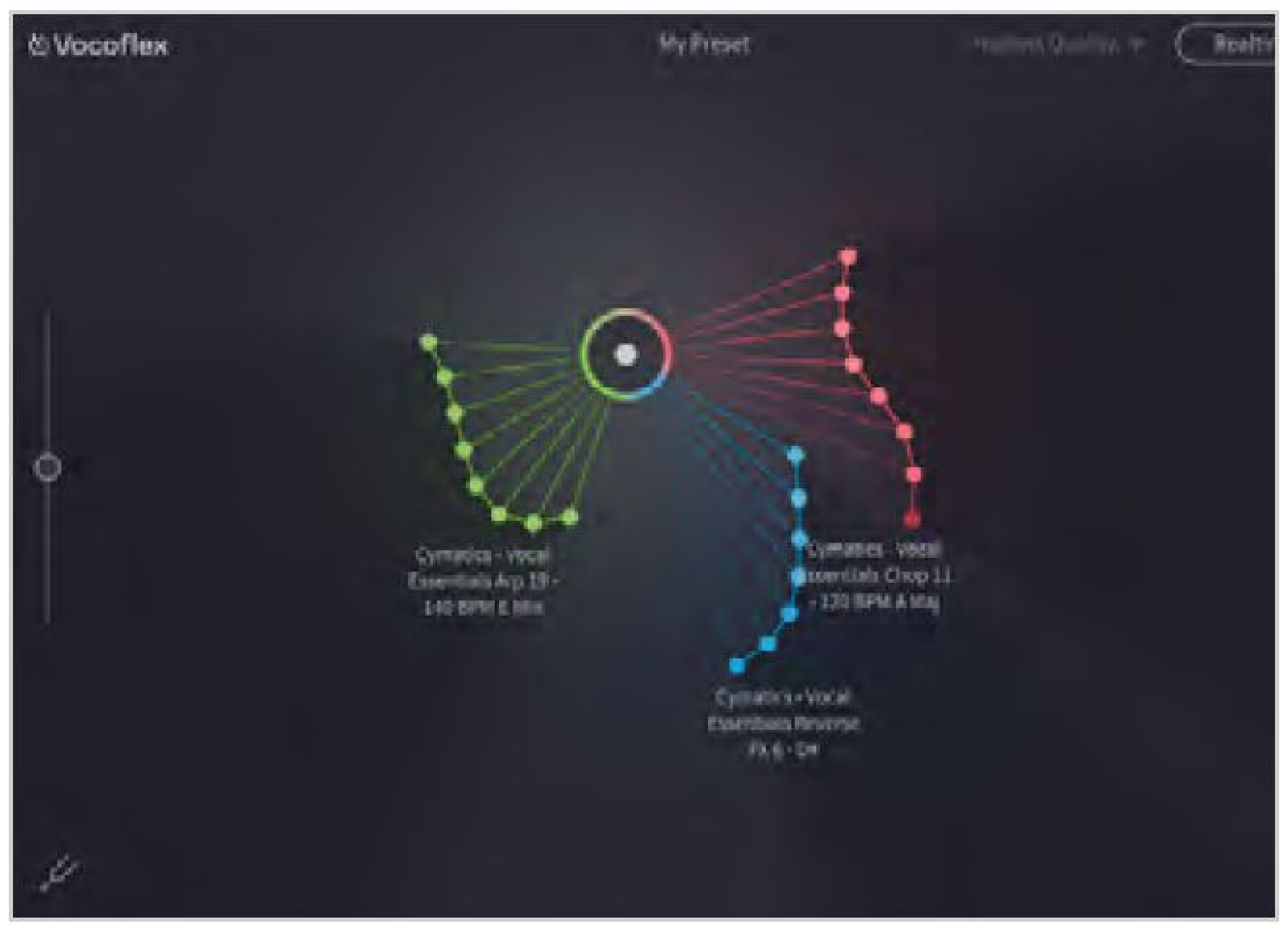
4 Find the pitch

Use the pitch slider at the bottom left of the plug-in window to match the vocals to your instrumental. By grabbing the large round dot on the user interface and moving it to the different chains, you can hear how well the instrumental and vocals fit together while playback is running. Want more variety?


Vocoflex
My Preset
Highest Quality
Smooth Mature Soprano
Bright Female J-Pop
1
2
3
4
5

5 Multiple singers

You can use the (partial) automation of Vocoflex for this. At the bottom right you will find the corresponding button with which you can place waypoints. It is then recommended to set shortcuts in the settings to jump to the points, as this does not happen automatically. The DAW is the better solution for complex automations.


Vocoflex
My Preset
Highest Quality

6 Try something new

With Vocoflex you can not only imitate real voices, but also get creative. For example, load vocal chops, arps or other vocal-like samples and be surprised at the effect it has on your original track. The often extreme pitching of such samples can lead to cool new effects.

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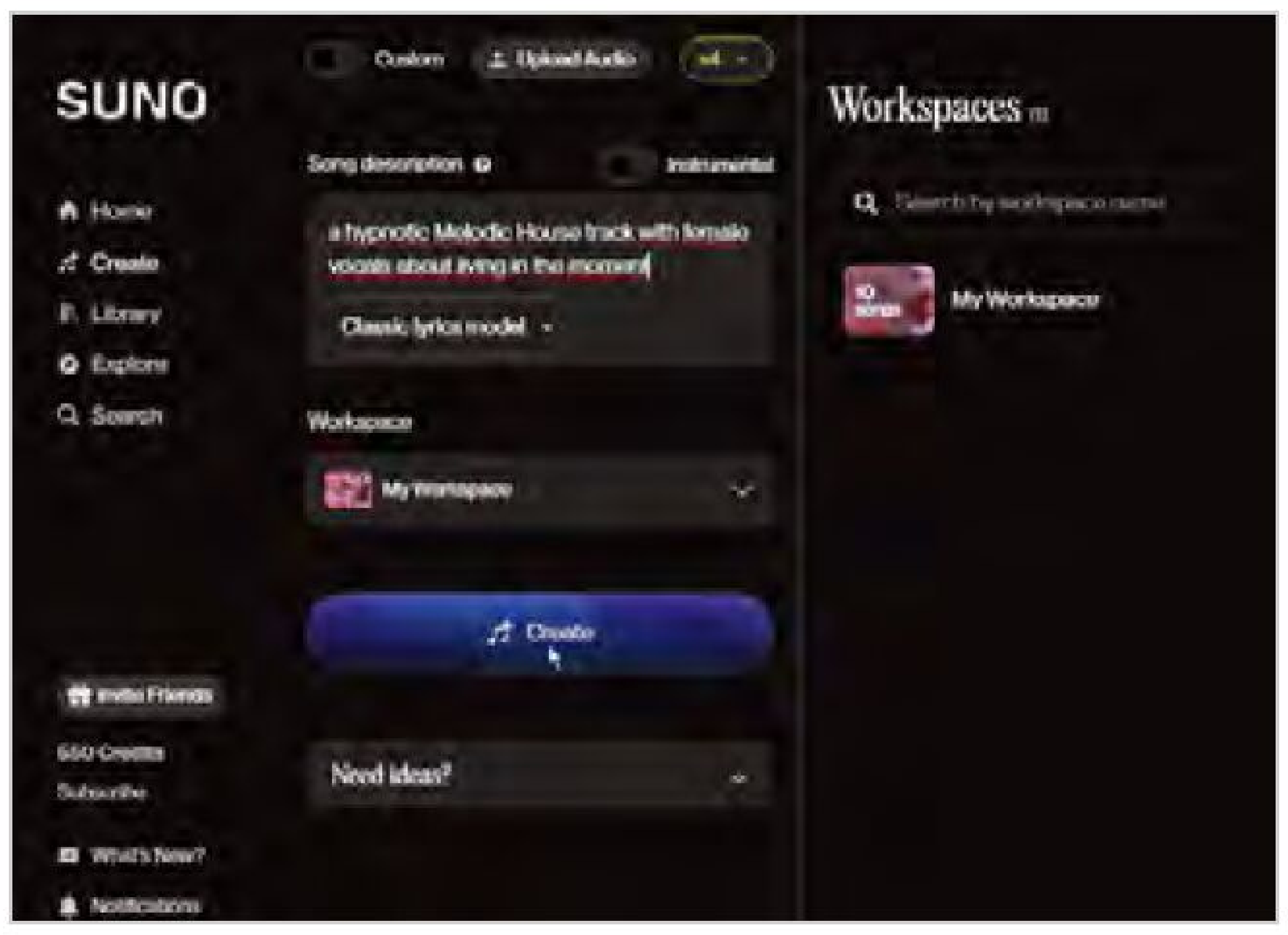
[1] See BEAT issue 2024/12, available to order at www.falkemedia-shop.de

Hands-on: SUNO

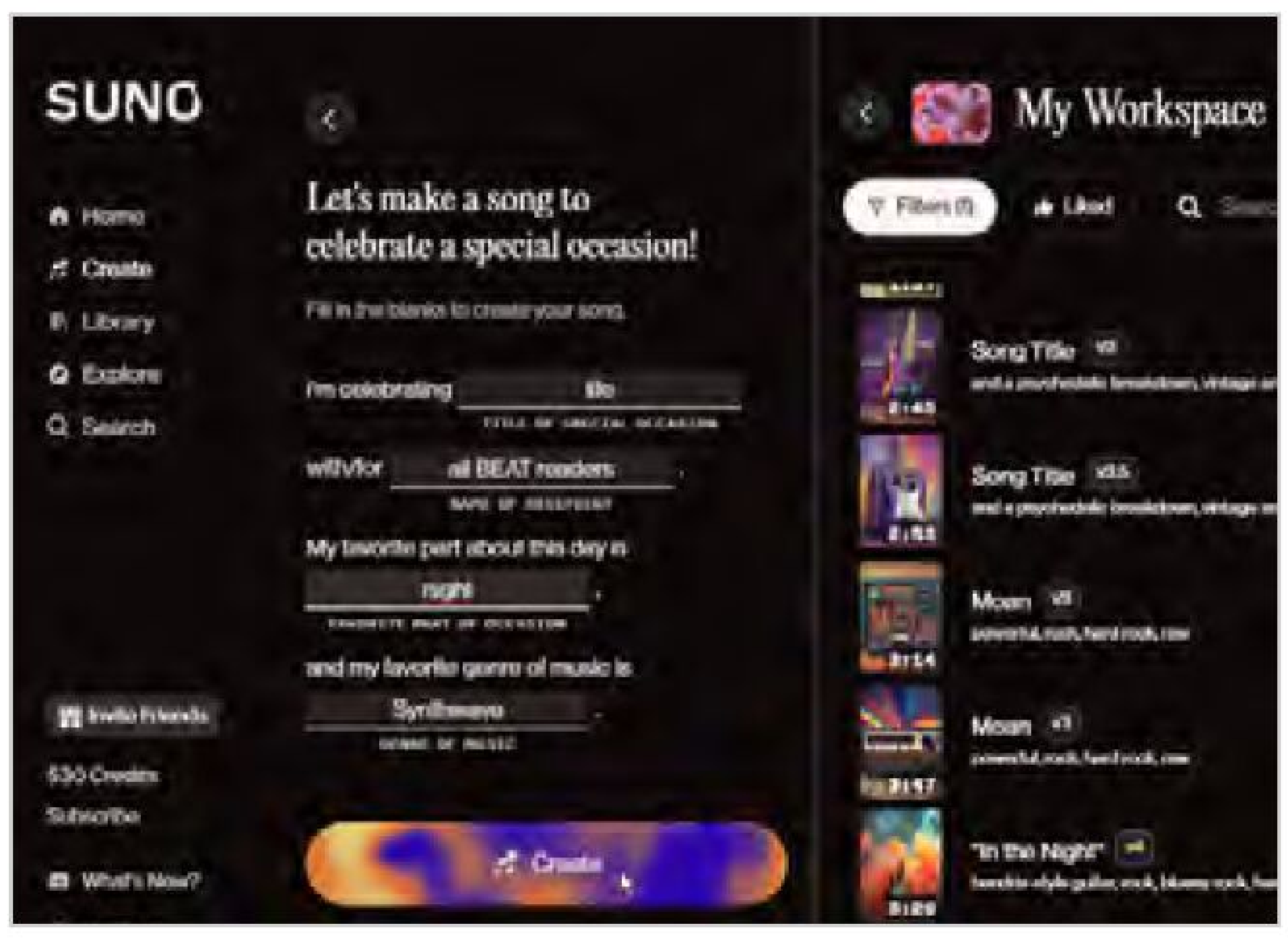
Create your song with vocals in seconds!

Suno is one of the most popular AI tools for creating complete songs including vocals. Real competition to handmade music or just a gimmick without any creative depth? Try Suno with us and see for yourself!


SUNO
Custom
Upload Audio
Song description
Instrumental
Home
Create
Library
Explore
Search
a hypnotic Melodic House track with female vocals about living in the moment
Classic lyrics model
Workspace
My Workspace
Create
Invite Friends
Subscribe
Need ideas?
What's New?
Notifications
Workspaces

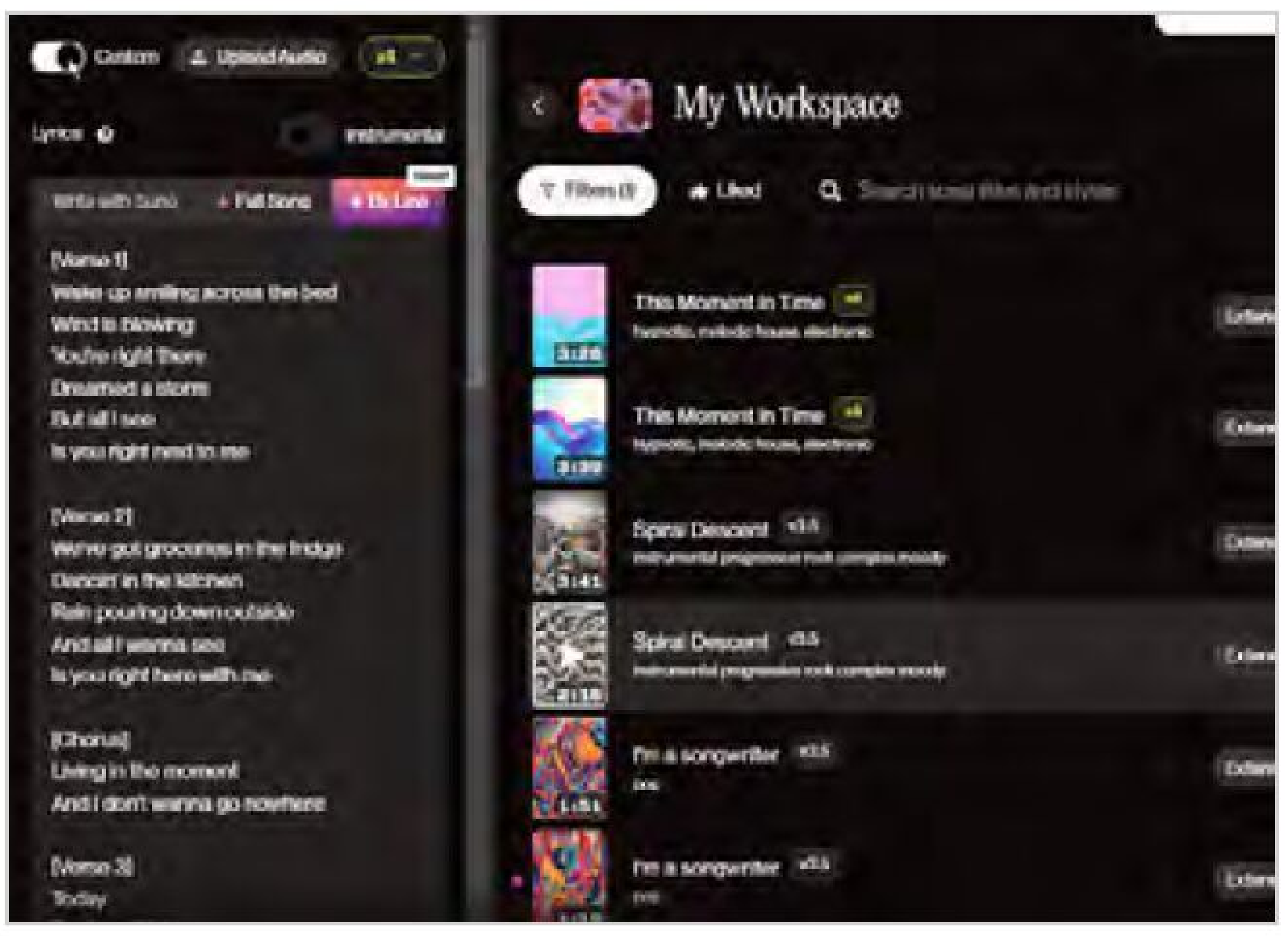
1 Create an account

Before you can start, you need to create an account with Suno at www.suno.com. You can register via Google, Discord or an email address. After registering, you can get started straight away - no installation required, as Suno runs entirely in the browser. Click on Create and enter a short description of the song you want.


SUNO
Let's make a song to celebrate a special occasion!
Home
Create
Library
Explore
Search
all BEAT readers
Synthwave
Create
My Workspace
Filters
Liked
Song Title
Moan
"In the Night"
What's New?

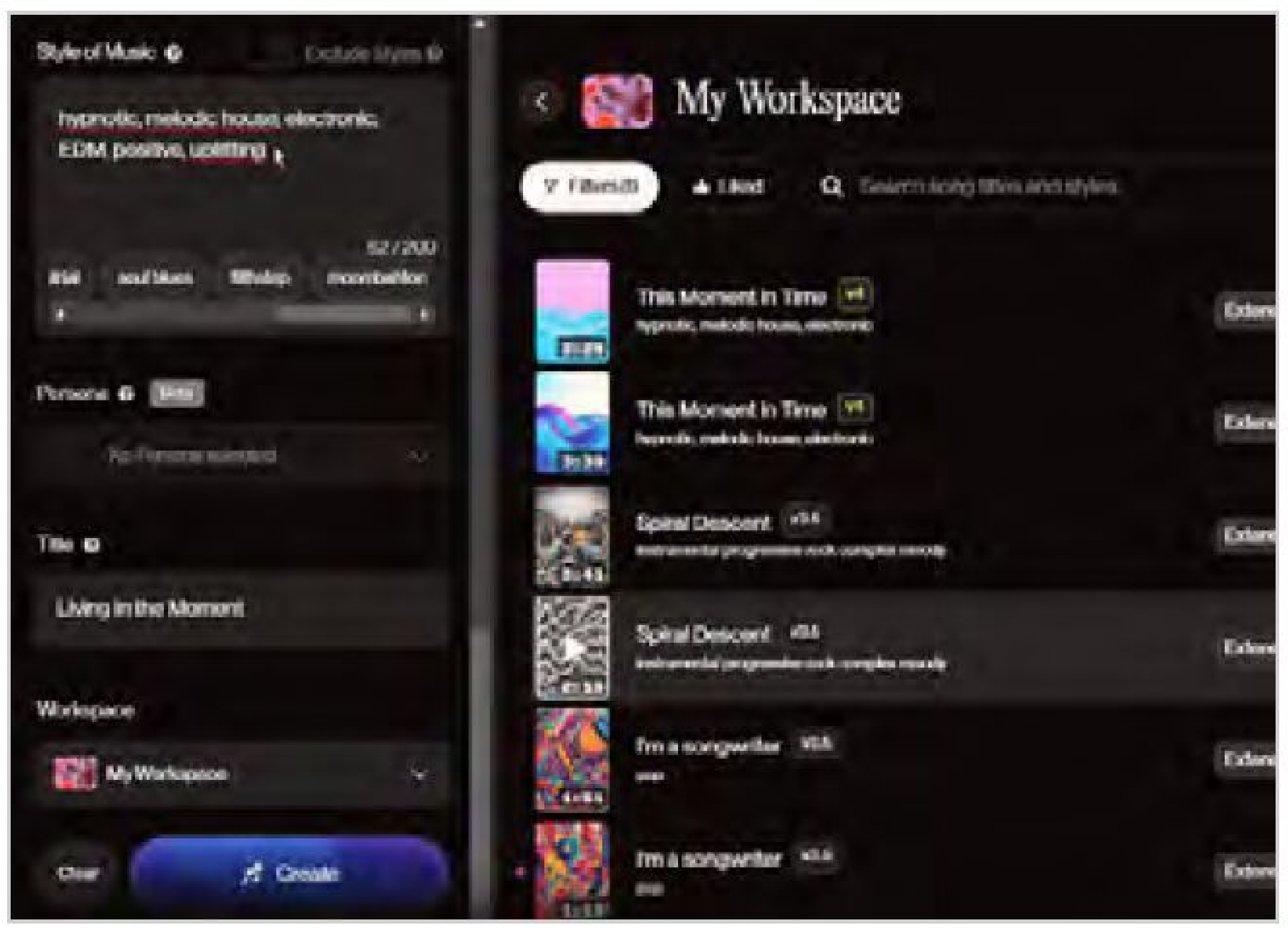
2 Song description

Suno feels at home in various genres - from pop to hip hop to orchestral film music. Try this prompt: „a hypnotic melodic house track with female vocals about living in the moment". If you don't have a clear idea yet, you can generate suggestions by clicking on **Need ideas**?


Custom
Upload Audio
Lyrics
Instrumental
My Workspace
This Moment in Time
Spiral Descent
I'm a songwriter

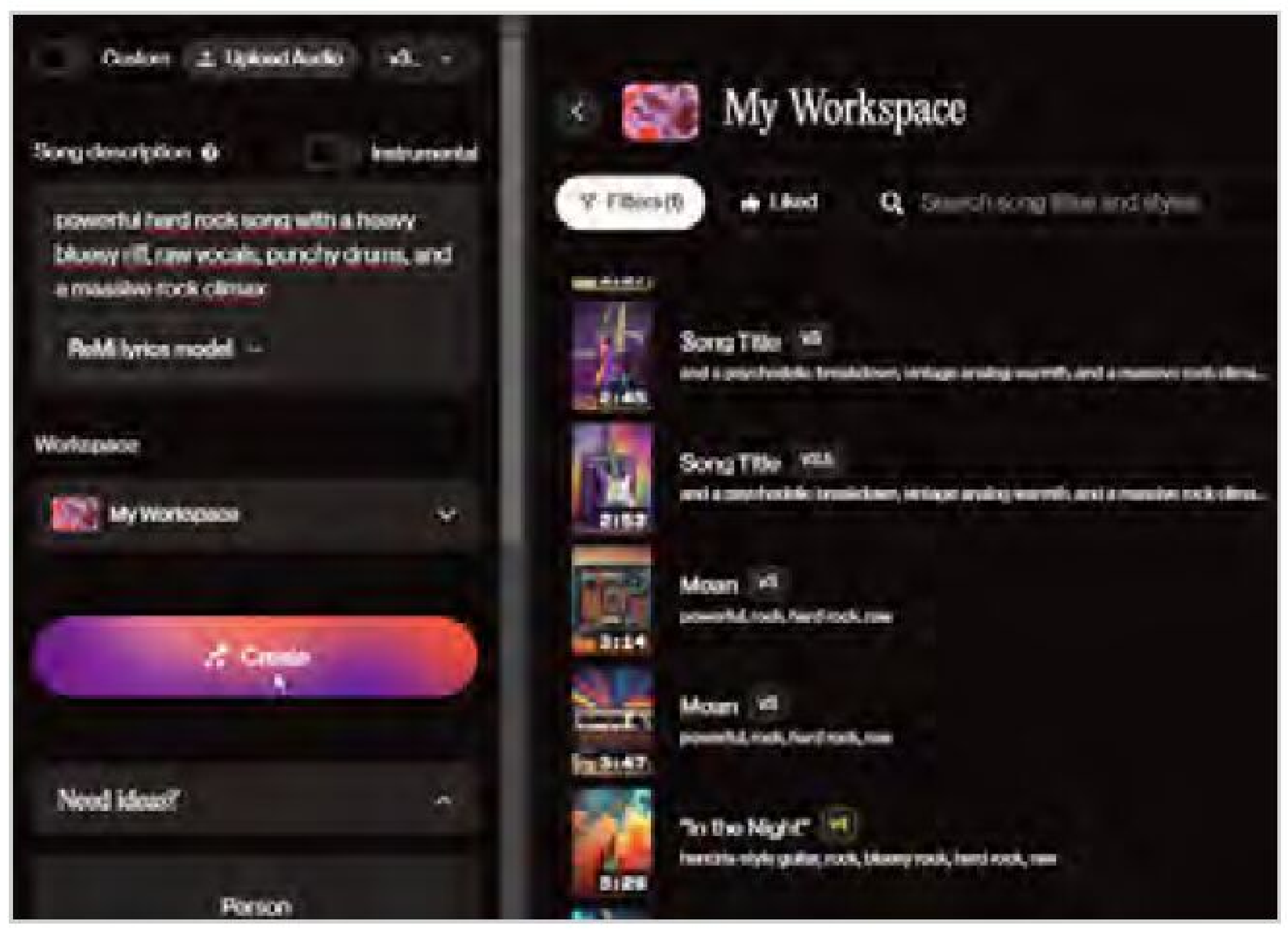
3 Generate songs

A special feature of Suno: You can decide whether your track should be just instrumental or with generated vocals. After clicking on the **Create** button, Suno creates two songs that meet these specifications. The results are promising - but how about even more creative options? To do this, activate the **Custom** mode.


Style of Music
hypnotic, melodic house, electronic, EDM positive, uplifting
Persona
Title
Living in the Moment
Workspace
My Workspace
Create
My Workspace
This Moment in Time
Spiral Descent
I'm a songwriter

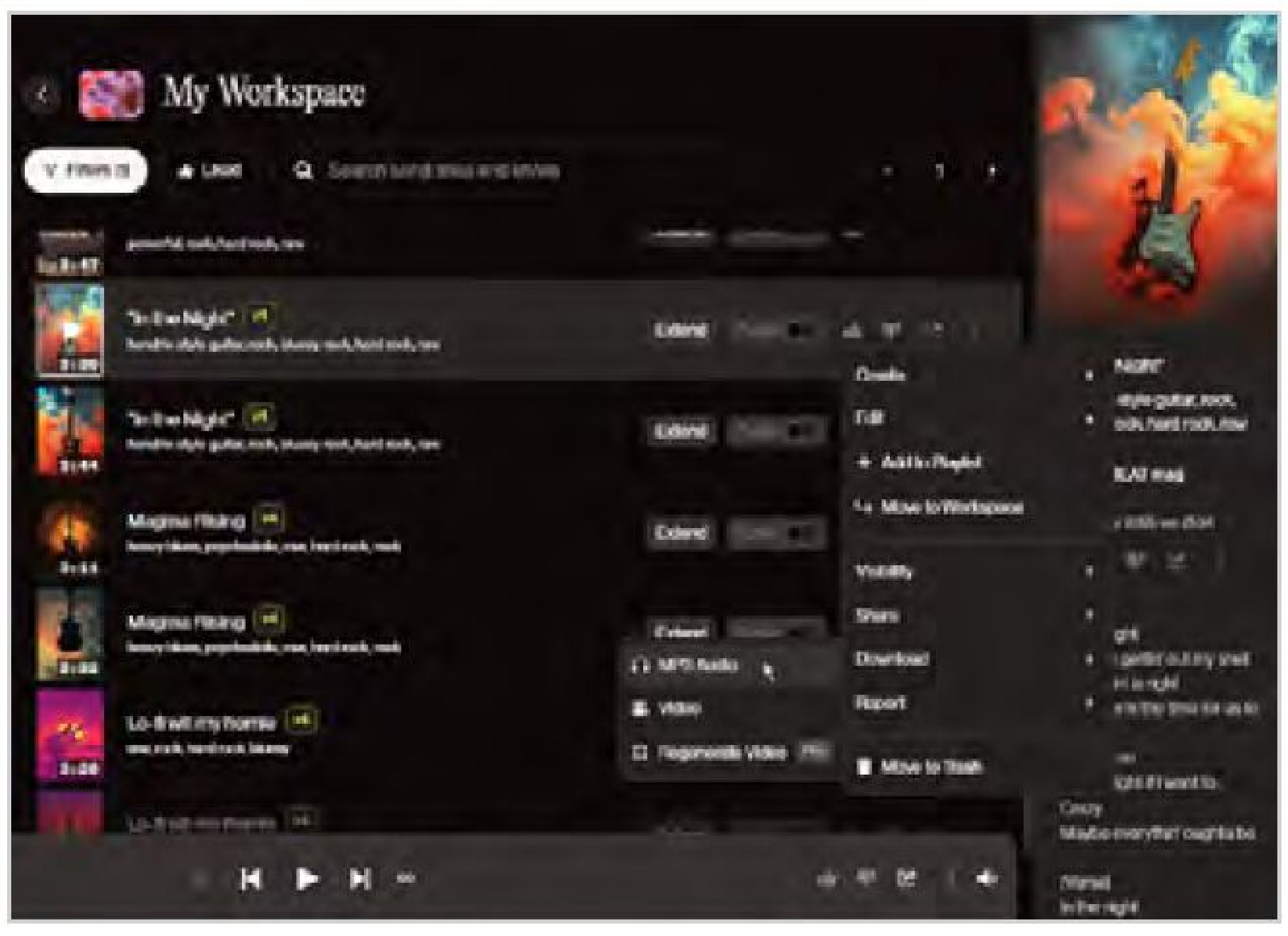
4 Creative freedom

In this mode you can define other parameters such as the music style. If you define a **persona**, you can generate several songs in the same style and with the same voice, for example for an EP or an album. Finally, if you want lyrics, you can enter your own text or let the AI write one for you.


Custom
Upload Audio
Song description
Instrumental
powerful hard rock song with a heavy bluesy riff, raw vocals, punchy drums, and a massive rock climax
ReMi lyrics model
Workspace
My Workspace
Create
Need ideas?
My Workspace
Song Title
Moan
"In the Night"

5 Let's rock!

After a few seconds your track is ready! If you don't like the result, you can adjust the input and generate a new version. How about some „handmade" music? Try this prompt: „powerful Hard Rock song with a heavy bluesy riff, raw vocals, punchy drums, and a massive rock climax".


My Workspace
"In the Night"
Magma Rising
Extend
MP3 Audio
Video
Download

6 Export and use

The result is impressive! You can download songs as MP3s or even as a video with lyrics, but unfortunately not the stems. These would significantly increase the musical benefit for producers. With a paid subscription starting at $10 per month, you receive a license to use your generated songs commercially.

Songs at the touch of a button

The legal situation

AI-based platforms such as Suno AI or Udio are now able to create complete songs, including full instrumentation and often even almost frighteningly realistic-sounding vocals, at the touch of a button. All you have to contribute are a few keywords such as the style of music, mood, tempo or the subject of the lyrics, and the technology does the rest. But what about copyright? Can you simply publish these songs and do you perhaps even own the rights to them?

His first release as a musician with the band STERIL and his first contact with the media industry took place in 1989. This was followed by work at various media companies, both in front of and behind the scenes, and from the mid-90s onwards he studied law. After a few years as a legal advisor at the market leader for multimedia software in Berlin, he opened his own law firm and also worked as a freelance journalist.
www.jan-wilking.de

No problem as pure inspiration

If you use the AI-generated song at home, for example to create a personalized ballad for your loved one for Valentine's Day without much effort or to annoy your long-haired friend with a Pop version of his favorite Metal track, this is no problem.

And if you use the result purely as a source of ideas for an independent track, there is actually no difference to being inspired by a song you heard on the radio or in a club - that is also allowed without question, because inspiration and further development is an essential part of art.

Publication only with consent ...

But it gets more complicated if you want to publish the AI-created song or essential elements of it. The AI can only create an unbeatable catchy tune from the input „Create an upbeat Pop song with a happy vibe“ because the application has been trained with countless songs from this area. And these songs are protected by copyright and may only be used with the consent of the rights holders.

It is still largely unclear what consent the provider of such AI applications needs to use the protected training material and how the authors must be remunerated for the use. For example, at the end of January 2025, the collecting society GEMA filed a lawsuit against the AI provider Suno Inc. in order to enforce the rights of its members. This problem is not limited to musicians; other groups of artists such as writers or graphic artists also have a right to a reasonable fee for the use of their works for AI training. After all, the companies behind the AI providers also earn money from the results.

... if the original is recognizable

For you as a user of the application, however, this question is secondary. Before using the AI-generated result, you „only“ have to check whether and to what extent pre-existing works are recognizable in it. This determines whether or not the permission of the authors of these works must be obtained before the AI-generated content is published.

As already mentioned above, the reproduction, distribution or public reproduction of copyrighted content is generally only permitted with the consent of the rights holders. And this applies not only to the unmodified original, but also to modified and recomposed versions, provided that sufficient distance is not maintained from the work used. If, on the other hand, the works used to train the AI are no longer recognizable in the AI-generated song, the song can be used freely - at least if the terms of use of the AI platform do not restrict this. Unfortunately, the AI providers do not tell you which original songs by which artists were used as training templates for the newly generated song, which makes it difficult to compare them with known titles.

No own copyright

You must also note that copyright does not protect purely AI-generated songs. This is because case law requires a human's own intellectual creation that reflects the personality of the author by expressing their free creative decisions. Simply entering a prompt, i.e. an instruction to the AI, is usually not enough to be considered the author of the AI-generated content.

So if someone copies „your“ AI-generated song after publication, there is not much you can do about it. Because even if the song can be viewed as an independent work, i.e. has enough distance to well-known tracks, it was not created by a human and is therefore not protected by copyright. The situation is different if you have added your own distinctive elements, be it musical or lyrical, because then you at least become a co-author.

Theory vs. practice

So much for the theory. On the other hand, if you look at how streaming platforms and video portals are already flooded with AI-generated songs, lyrics and videos (which often quite clearly reveal the trained songs and artists) without any major waves of warnings and lawsuits having occurred so far, it is still a gray area in practice. However, the legislature is already working on more suitable regulations such as the AI Regulation to protect both sides (authors and users).

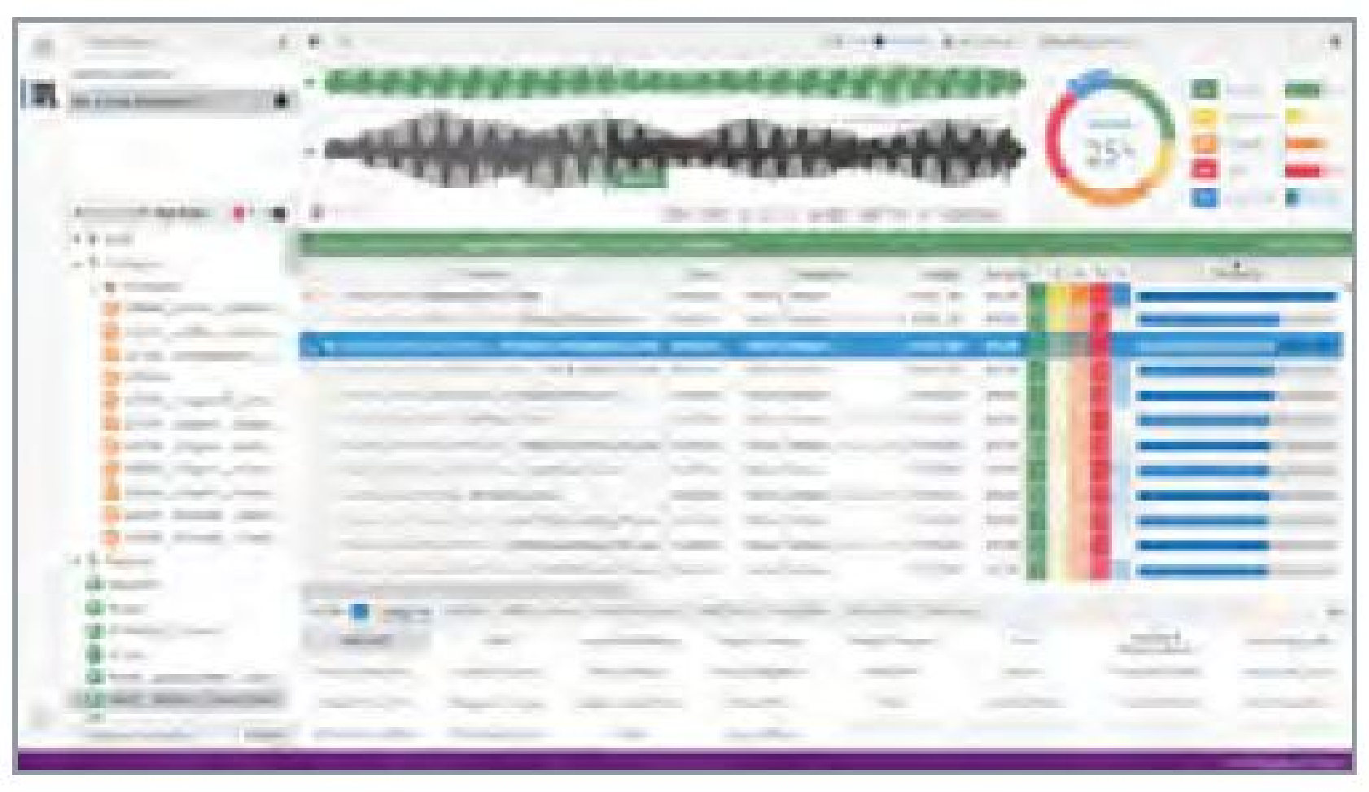
EU and the rest of the world

From a legal point of view, it remains an exciting topic, especially when AI-generated songs are distributed beyond the borders of the EU. Despite some international agreements to harmonize copyright law, Anglo-American copyright law in particular differs quite significantly from the regulations that apply here.

In the USA, copyright is more geared towards the commercial exploitation of works, it is freely transferable and the owner of a copyright can also be a company. In addition, copyright is achieved through registration, like a trademark in our country. It cannot be ruled out that in the USA or countries with similar legal systems, the companies behind the AI providers will also be granted copyright to the AI-generated content in the future if at least a minimum level of human involvement can be identified. ⁘

The 6 best AI tools for sample finding & stem splitting

Sononym



Sononym analyzes and categorizes your sample library. The tool distinguishes between one-shots and loops and assigns the sounds to instrument groups (drums, pads, etc.). You also get length information, sample rates, key, BPM and other information. A unique selling point of Sononym is the Similar function. This allows you to find sounds that are similar to each other. That alone is nothing special, but the analysis and comparison of the aspects is. Using a color code, you can see at a glance how similar the samples are in terms of spectrum, timbre, pitch and amplitude, as well as in general. And of course the sounds can be listened to and manually categorized/tagged.

www.sononym.net | Price: 89 Euro

XLN Audio

XO

XO is a sample finder designed specifically for drum and percussion sounds - although drum workstation is actually a more appropriate term. Although XO also catalogs your drum samples, it offers detailed sound settings. For example, you can define the envelope, tonality, filter, reverse and swing of the individual instruments. In addition, the beat and sample combiners each offer eight slots so that you can quickly try out different combinations of sounds. You can also program track-specific accents using the Accentuator. In addition, kits can be saved as presets or, alternatively, you can use the ones included in the delivery along with the over 8000 factory sounds. The almost 130 euros is fair for the scope that XO offers.

www.xlnaudio.com | Price: 129 Euro

Waves

Cosmos

Just like the two previous candidates, Cosmos analyses and categorises your samples. The common tags and filter options such as key, BPM, style and timbre are also covered. In addition to distinguishing between loops and one-shots, you can also search specifically for raw and processed sounds. For example, if you search for „saturated kick“ you will only see those. In theory. In practice, this only works partially. Nevertheless, it is a cool function that can be helpful at least for quick layouts. And of course you can also give Cosmos a helping hand by manually editing the tags. It should also be mentioned that 2500 samples are included as standard.

www.waves.com | Price: 79 USD

UVR (Ultimate Vocal Remover)

The Ultimate Vocal Remover (UVR) is an application for extracting stems from mixes (not just vocals!). The free software uses machine learning and neural networks to do this. There are five models for splitting and five modes for extraction to choose from. For example, you can separate vocals and instrumentals or remove drums and bass. For processing, you can also choose between CPU and GPU mode, meaning you can use the most powerful component based on your components. You can also make a few quality settings and export the extracted stems as either a WAV, FLAC or MP3 file.

www.ultimatevocalremover.com | Price: for free

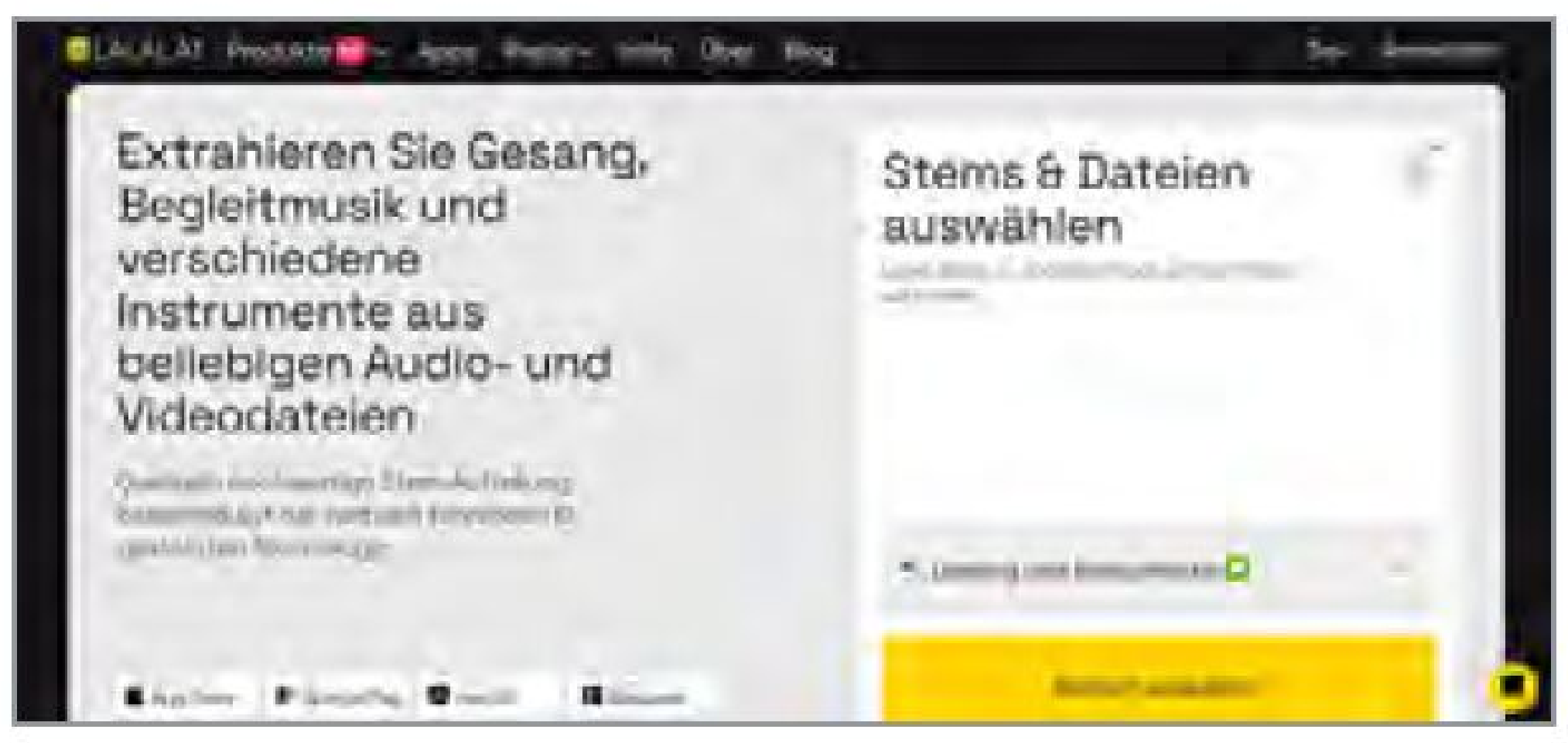
Deezer

Spleeter

Spleeter is an open source stem splitter from Deezer. With just a few clicks, audio files can be split into up to five stems. Unlike UVR, however, there are only three models to choose from, but they are sufficient. The music streaming service uses the tool itself to complete the metadata of tracks and to be able to give better recommendations to consumers. In terms of handling and setting options, Spleeter is much more limited than UVR. The tool is operated via the command line, which makes it complicated. You may have to resort to a third-party graphical user interface. There is also a specific 16 kHz version that at least preserves some of the highs (the default is 11 kHz). But it‘s still not really good ...

www.deezer-techservices.com | Price: for free

Lalal.ai



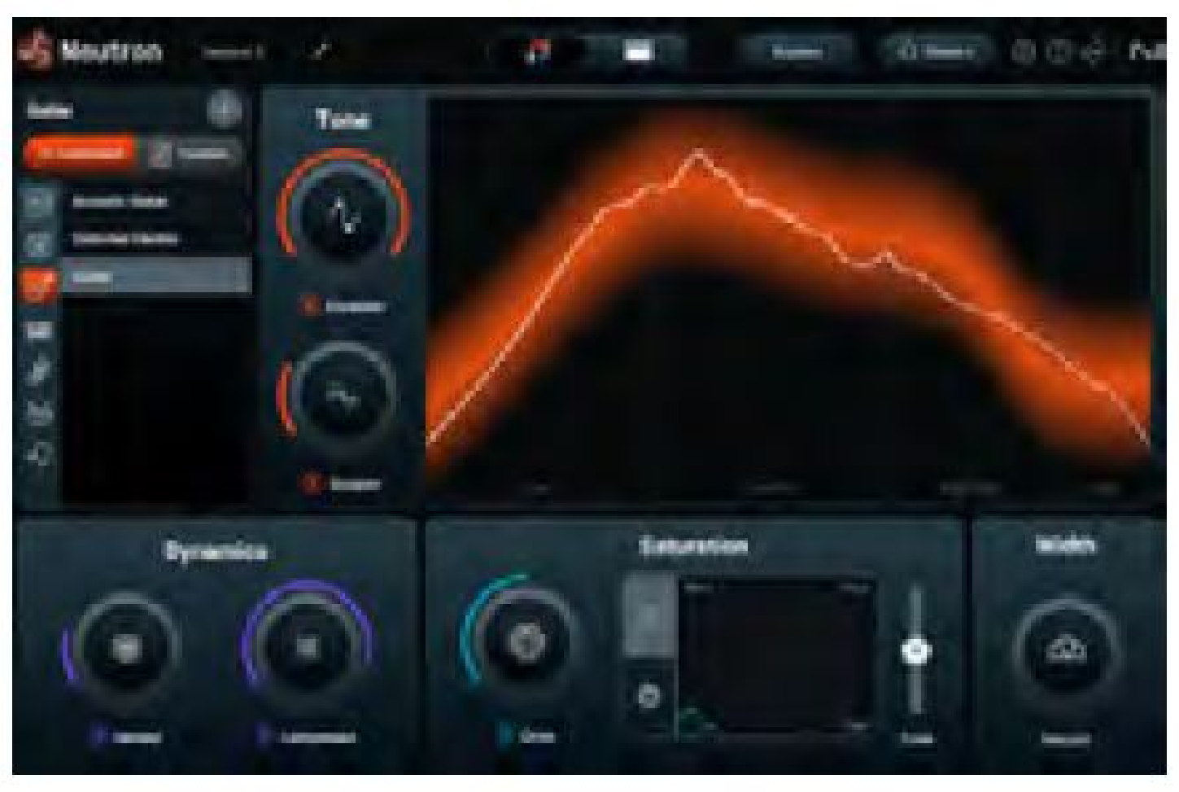
Extrahieren Sie Gesang, Begleitmusik und verschiedene Instrumente aus beliebigen Audio- und Videodateien

Stems & Dateien auswählen

Lalal.ai is an AI-powered online platform for separating audio tracks. Just like the tools already presented, you can isolate vocals, drums, bass and other stems. The advantage of an online service is that their servers are usually very powerful and therefore fast. If you don‘t want that, you can also download the app and install it locally. Apart from selecting the stem to be extracted, there are hardly any setting options, just de-echo and noise canceling. At least you can listen to the results before processing - this is important because the pricing model is based on billing by the minute. For 20 euros you can have 90 minutes of material edited.

www.lalal.ai | Price: from 20 Euro

The 6 best AI tools for mixing & mastering

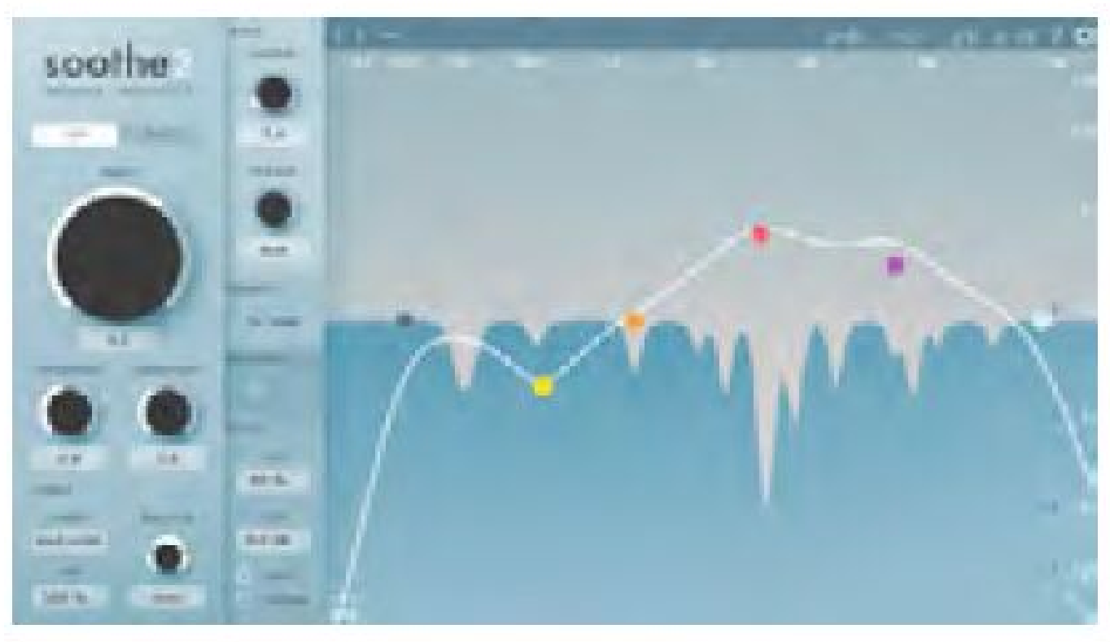


iZotope

Neutron

iZotope's AI-supported features have been very popular for years - Neutron is just one of the products with this technology. The mixing tool is a modular channel strip that houses processors such as EQ, compressor, phase correction, exciter and clipper. The Mix Assistant is particularly exciting, as it „listens" to a section of your audio material and then automatically makes adjustments. This includes equalizing, compression, gain and spectral balance. This gives you good starting points in no time at all, which you can adjust and refine manually. Regardless of whether you use the virtual assistant, Neutron is a high-quality, flexible and universally applicable mixing suite.

www.izotope.com | Price: from 55 Euro

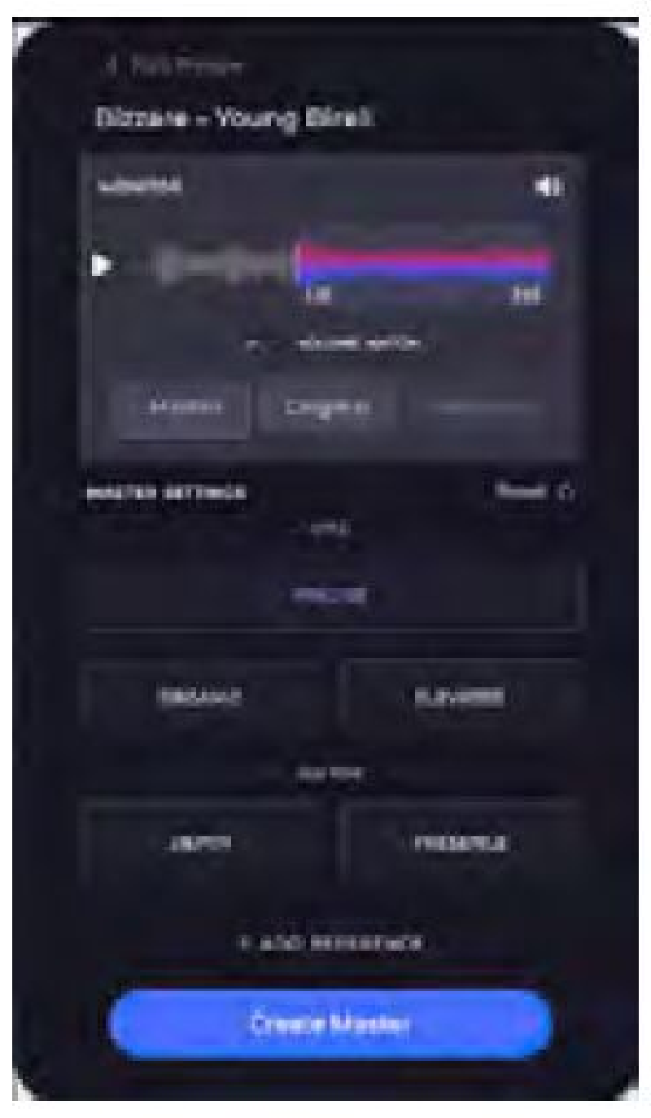


Oeksound

Soothe 2

With Soothe, Oeksound laid the foundation for the hype surrounding automated, dynamic resonance suppression. This plug-in is also based on analyzing the input signal and then makes the appropriate corrections. In addition to balancing the spectrum, the tool is also suitable for de-essing and reducing the proximity effect. In terms of settings, you can set depth, sharpness, selectivity, balance, attack and release. Modes such as soft, hard and mid/side expand the possibilities. Even though Soothe 2 could be used as a „traditional" EQ, its strengths lie more in the area of repair/restoration. Put simply, it provides a solid basis on which creative decisions can then be made.

www.oeksound.com | Price: 199 Euro



Waves

Online AI Mastering

Waves has also jumped on the online AI mastering bandwagon and launched its own service. The service offers three modes: Precise, Organic and Elevated, as well as a high or low boost to choose from. You can also optionally upload a reference track and let the AI try to adapt your track to it. You can listen to the result before rendering and switch back and forth between your original song, the master and the reference at a balanced volume. You won't find any specific setting options here, such as specifying a LUFS target for streaming masters. At least you can create high-resolution exports of up to 24 bit/96 kHz in WAV format.

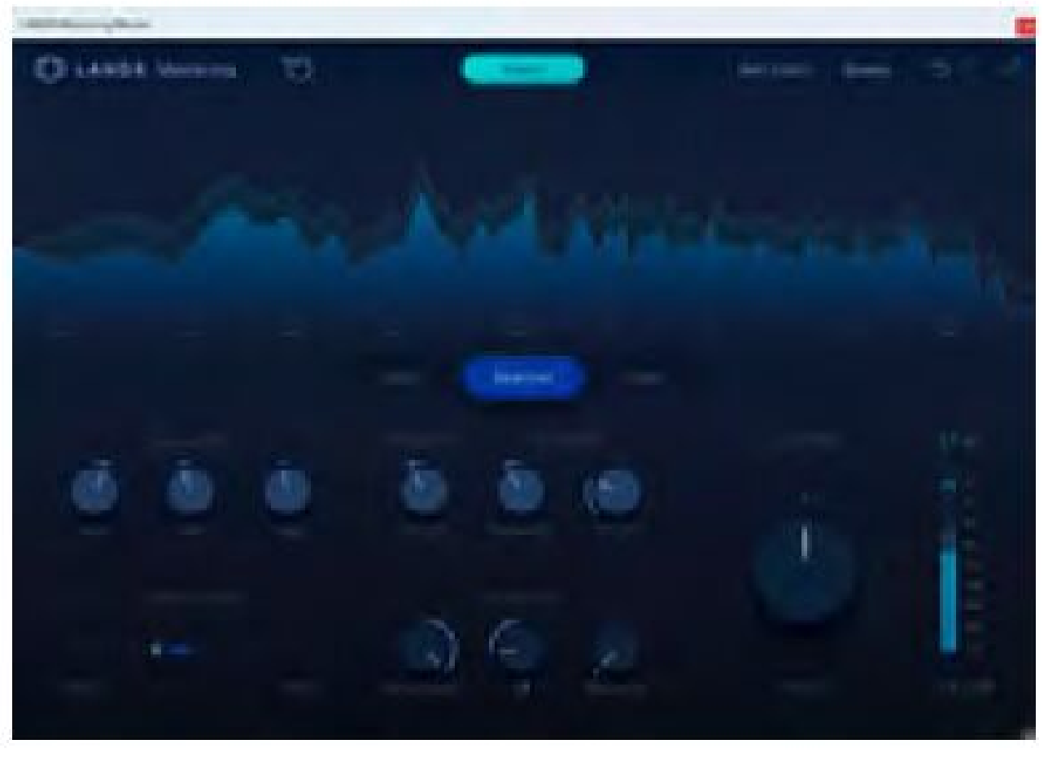
www.waves.com | Price: from 5,99 USD

Sonible

smart:EQ 4

Sonible's smart product range follows a similar principle to iZotope's tools. However, there are dedicated plug-ins for each application. Smart:EQ 4 is one of them. The equalizer analyzes the frequency response of an input signal and equalizes the spectral balance. For instruments or groups of instruments, this is done based on a profile you select (bass, guitar, etc.). Cross-channel de-masking is also supported. If necessary, you can also have the frequency response adjusted based on a reference track, which can be useful for mixing and mastering. Nevertheless, you retain full control over what is happening and can always get involved yourself.

www.sonible.com | Price: 129 Euro

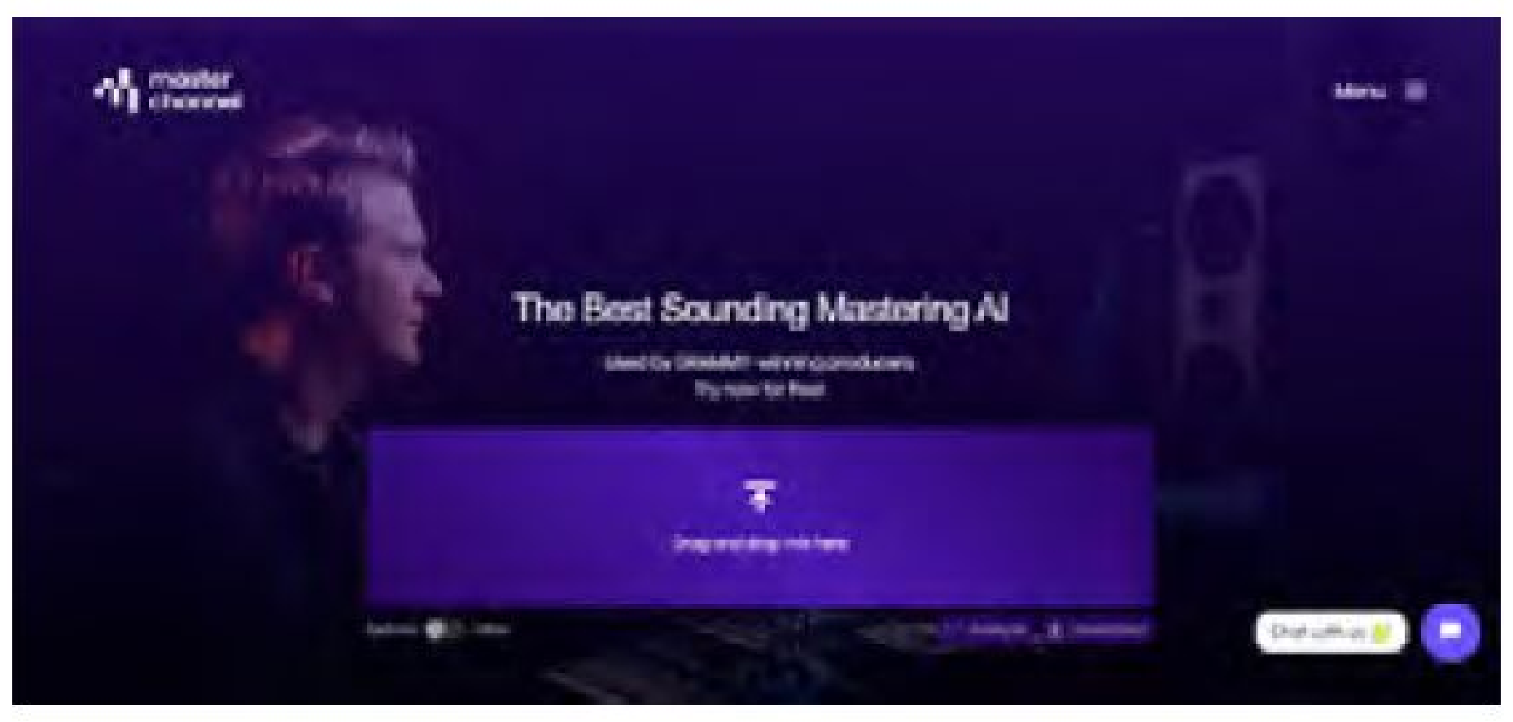


Landr

Mastering Plugin Pro

The plug-in brings the technology behind the online mastering service into the DAW. It analyses the input signal and creates an individual mastering chain for it. You can then choose between the styles Warm, Balanced and Open. You can adjust the sound manually using the equalizer, de-esser, stereo widener and compressor. Surprisingly, the Landr Mastering Plugin Pro does not support matching to reference tracks. A stripped-down SE version of the mastering plug-in is included in Landr Studio, which is available for just under ten euros a month. The full version costs 239 euros - a price that makes you want to take a look at iZotope Ozone.

www.landr.com
Price: from 9.99 Euro/month or 239 Euro



Masterchannel

Masterchannel is probably the most advanced online AI mastering service. It doesn't rely on traditional deep learning and existing data sets, but rather gradually learns how mastering works through reinforcement learning. It acts like a mastering engineer and can make individual decisions based on the source material. Top musicians and producers have helped to optimize the system. In addition, you can also have your songs mastered by the virtual clone of Grammy-winning engineer Wez Clarke. The platform even goes a step further and offers AI-generated upmixes of stereo in 3D (spatial audio), but this is no longer accepted by Apple Music.

www.masterchannel.ai | Price: from 15 USD/month

Interview

Ferry Corsten

Ferry Corsten is a musician who is always looking for new sonic possibilities and always keeps his finger on the pulse. For decades he has shaped the Trance genre with innovative sounds and visionary projects. But how is modern technology - especially artificial intelligence - changing the creative process in music production? In the interview, Ferry talks about his approach, new tools and the role of AI in the future of electronic music.

***Beat /** What role does AI currently play in your music production and how has it changed your approach?*

Ferry / AI has its pros and cons in music production. It‘s great for sparking ideas, streamlining workflows, and even generating vocals when needed, but it also raises questions about authenticity and ownership. Personally, I use AI mostly as a sparring partner for ideas and occasionally for vocal generation, but always as a tool to enhance creativity, not replace it. Ultimately, music is about human emotion, and that‘s something AI can‘t replicate.

***Beat /** Is there a particular AI tool or feature that particularly surprised or inspired you?*

Ferry / I‘m currently testing all the platforms out there and each one has its own characteristics. However, working with different AI tools is not as easy as it sounds. You have to make the right prompts and suggestions to get the results you want. Ultimately, the effort is just as much as a normal production, as AI tends to give pretty generic results if you don‘t make the effort to fine-tune it.

***Beat /** Do you use AI more as a creative tool or to support technical tasks?*

Ferry / As I mentioned before, I see AI more as a supporting tool rather than something to be completely relied on. Once you completely rely on it, you lose control of the creative process. I usually feed an existing idea into AI to explore new perspectives and move the project forward. It‘s all about improving what already exists, not replacing the core of creativity.

***Beat /** Are you concerned that AI could standardize the creative process too much? How do you ensure that your own musical signature is preserved?*

Ferry / It’s definitely worrisome when AI uses your signature music to learn from. In principle, the concept isn‘t new—others have learned from my music just as I’ve learned from others. But the speed at which things are evolving and the unknowns in today’s world make me pause. There’s a fine line between inspiration and replication, and AI can blur that line in ways that are difficult to predict. It’s something that definitely deserves careful consideration.

***Beat /** In which areas of your music production do you see the greatest potential for AI in the future?*

Ferry / I see the greatest potential for AI in the future in songwriting, vocal performance and developing musical ideas. AI can be a powerful tool for jamming, helping to refine lyrics or even experiment with vocal arrangements. It can‘t replace the human touch, but it can certainly point to and inspire new directions in the creative process.

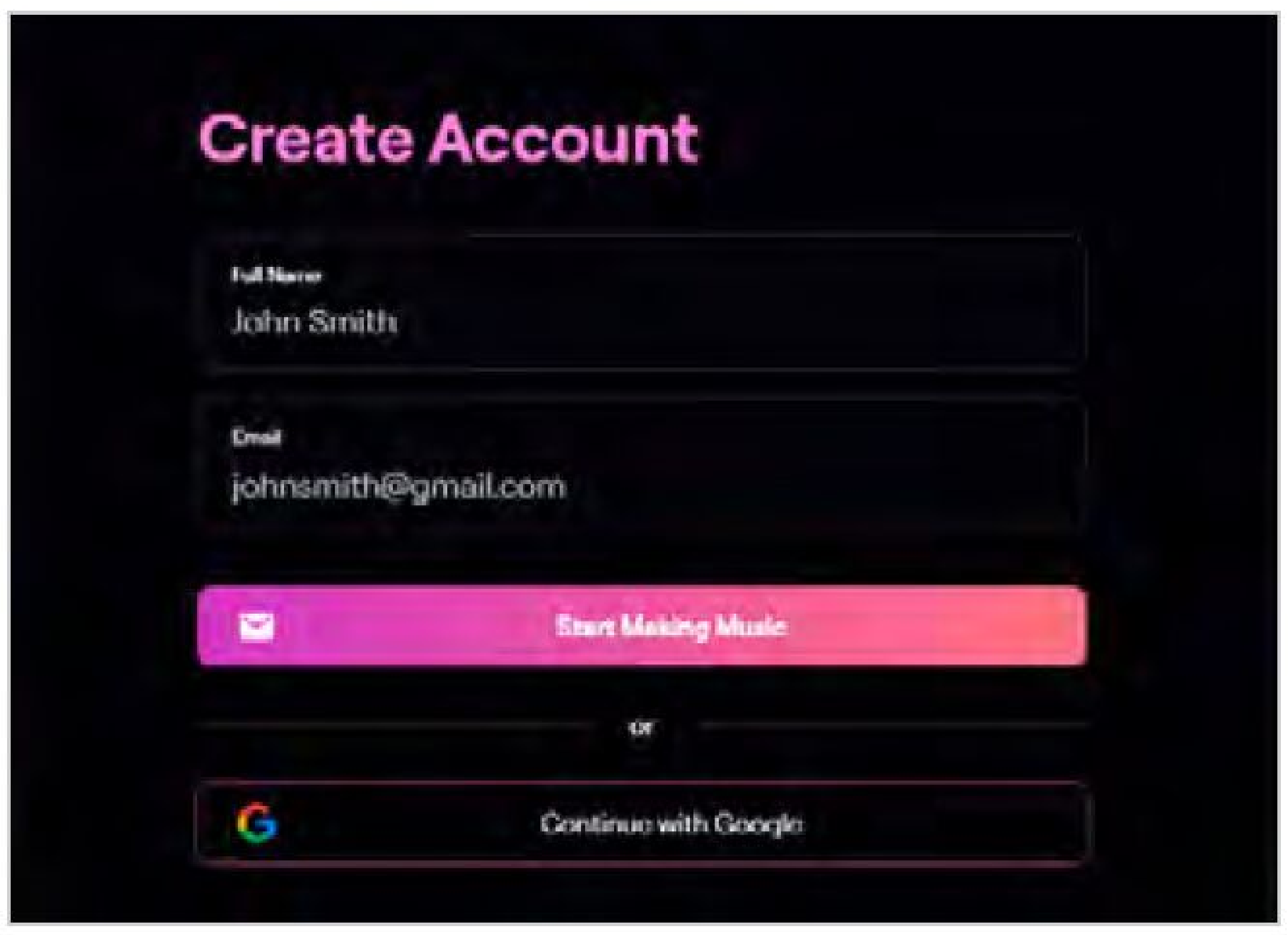
www.ferrycorsten.com

Voice transformer & beat generator in the browser

Finished songs in no time

More info

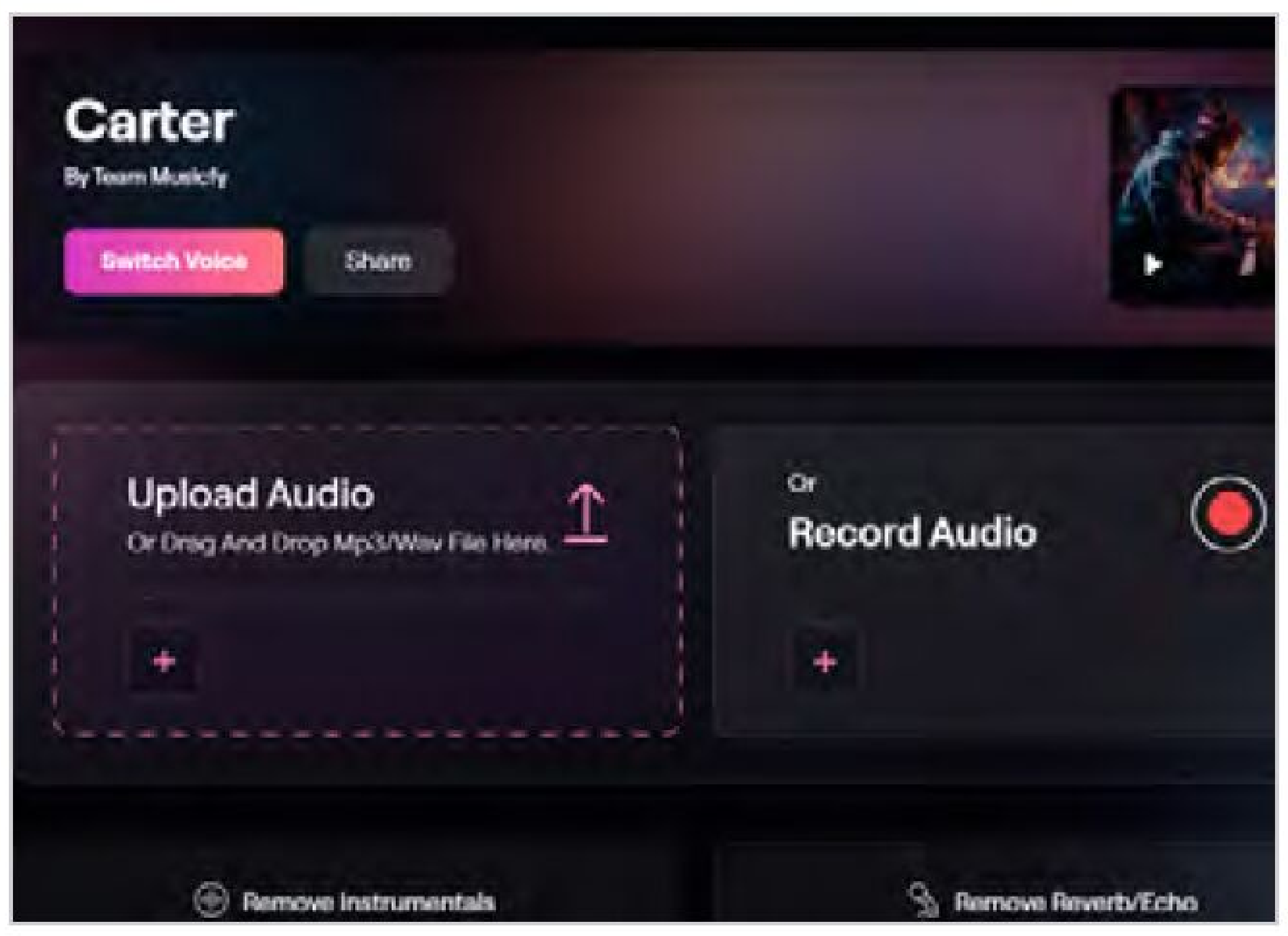
Musicfy is an online platform that lets you transform your voice and generate beats. And all of this, thanks to artificial intelligence, with just a few clicks of the mouse and in your browser. We'll show you how to use the service.


Create Account
Start Making Music
or
Continue with Google

Full Name: John Smith
Email: johnsmith@gmail.com

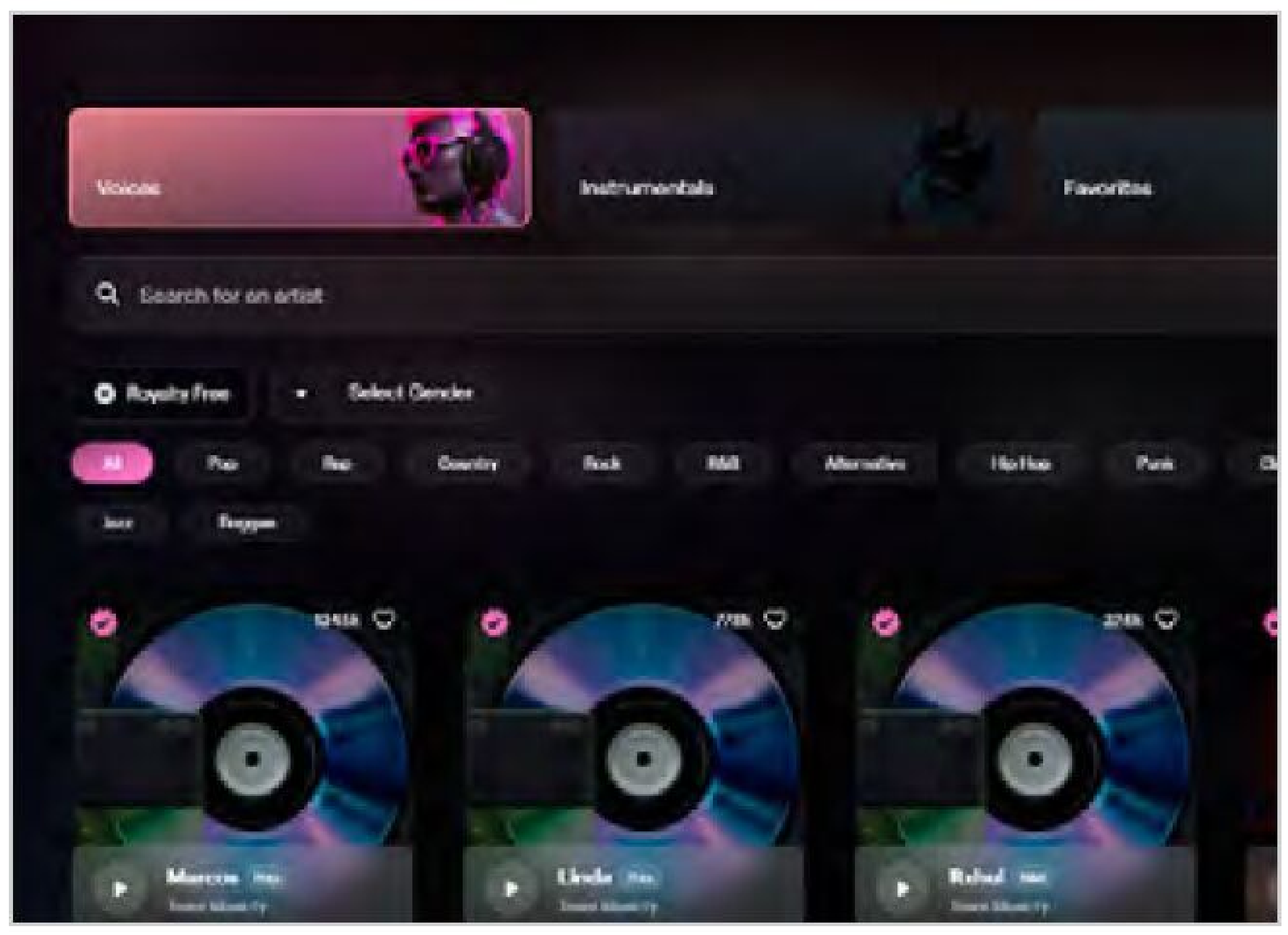
1 Create an account

Create an account on musicfy.lol if you don't already have one. We recommend the free version to start with. This will allow you to try out the platform and get a feel for whether it meets your expectations. Once you receive the confirmation email, you can get started straight away.


Carter
By Team Musicfy
Switch Voice
Share
Upload Audio
Or Drag And Drop Mp3/Wav File Here
Or
Record Audio
Remove Instrumentals
Remove Reverb/Echo

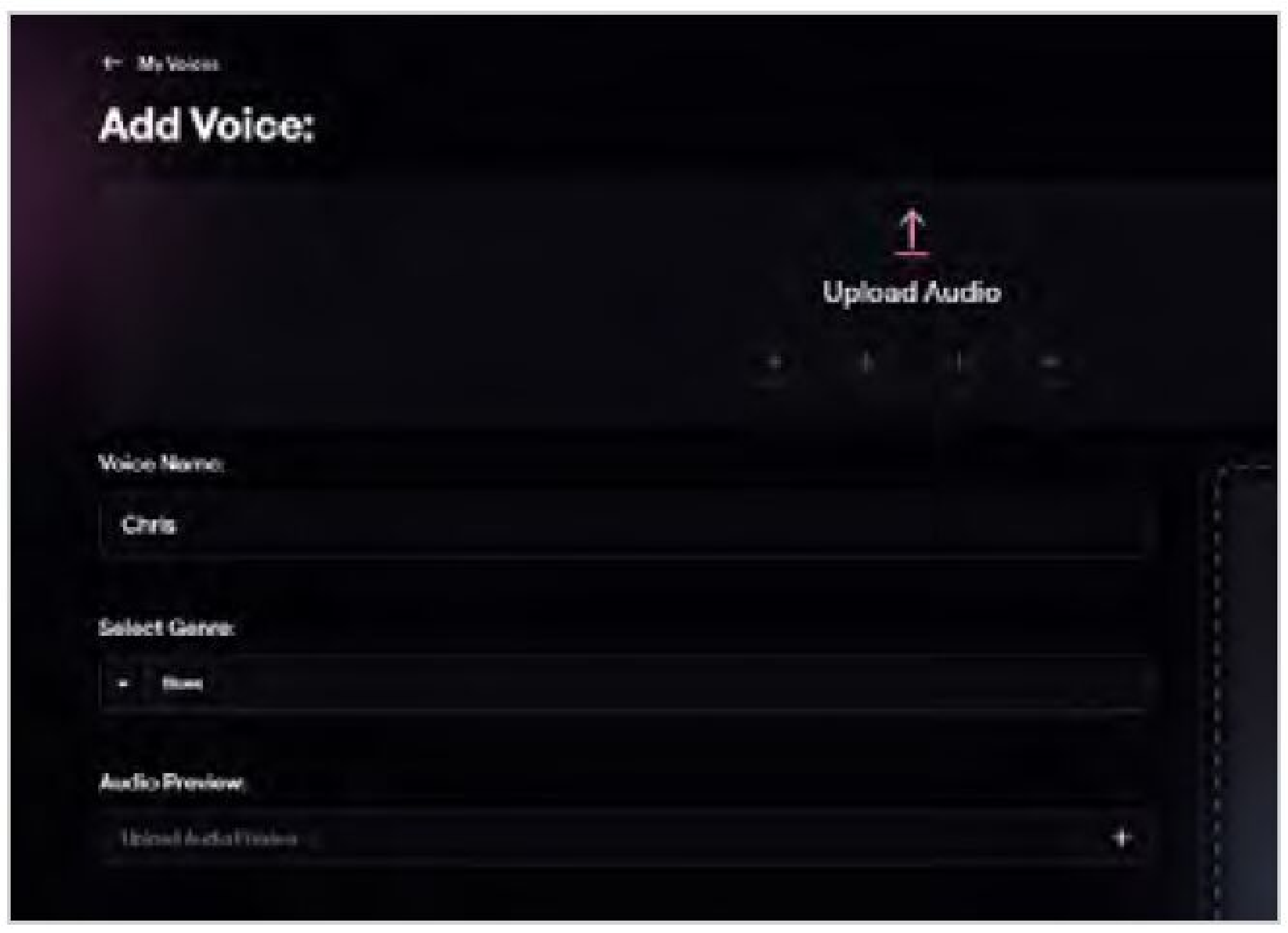
2 Upload voice

In the sidebar, select **Convert Voice** under **Create**. Here you will find two fields to upload an audio file that has already been recorded or to have Musicfy record speech or singing directly in the browser. You can also extract vocals from a song. To do this, upload the track and select **Remove Instrumentals** below the field.


Voices
Instrumentals
Favorites
Search for an artist
Royalty Free
Select Gender
All
Pop
Rap
Country
Rock
R&B
Alternative
Hip Hop
Punk
Jazz
Reggae
Marcus
Linda
Rahul

3 Select a model

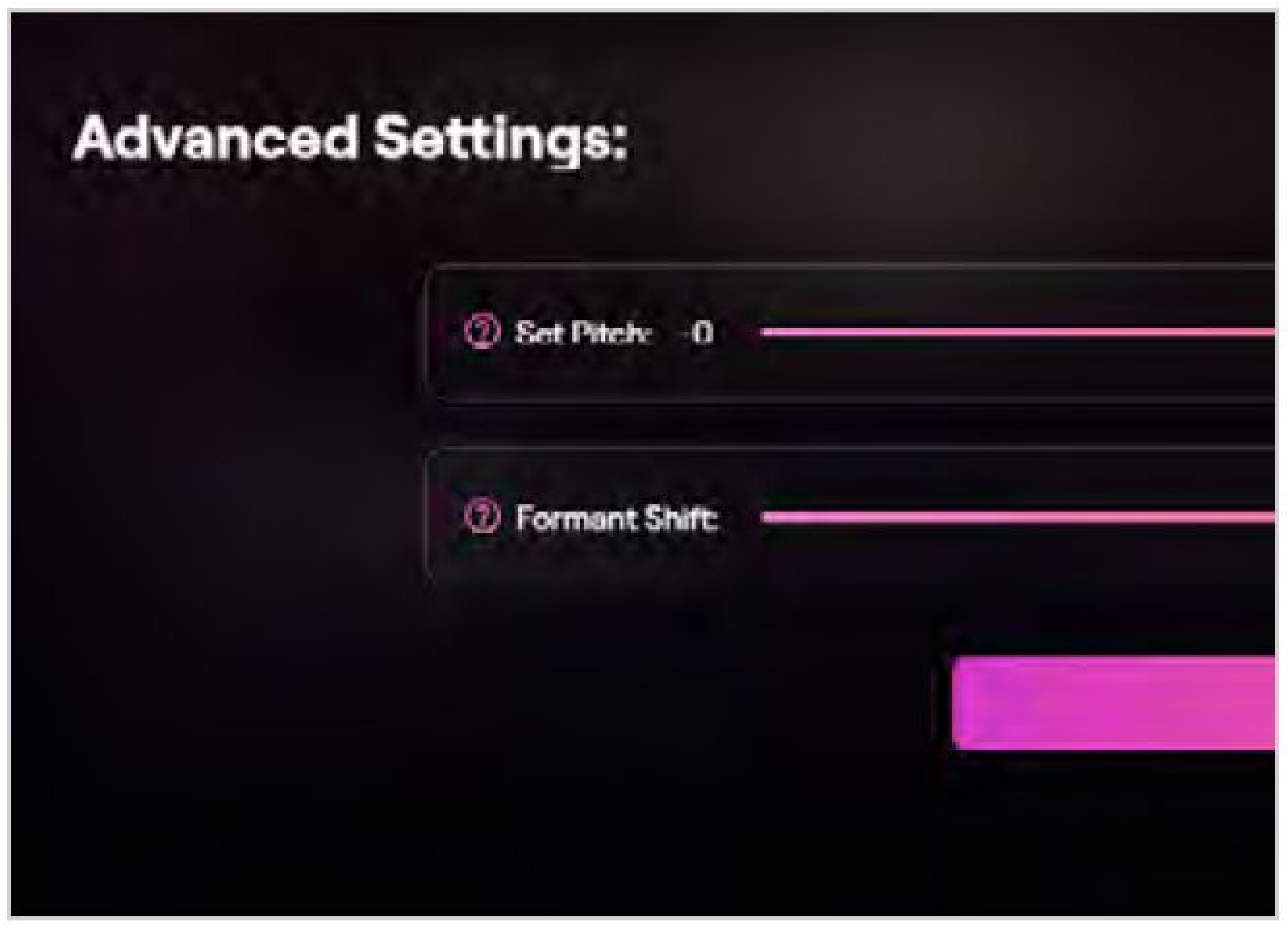
Above the upload field you will see a plus sign with **Select a voice** next to it. Clicking on it will take you to the voice model selection page. To avoid legal problems, it is recommended to filter by **royalty free**. You can also specify gender and genre. Listen to the models and select one you like.


My Voices
Add Voice:
Upload Audio
Audio Preview:
Upload Audio Preview

Voice Name: Chris
Select Genre: Rap

4 Train your own model

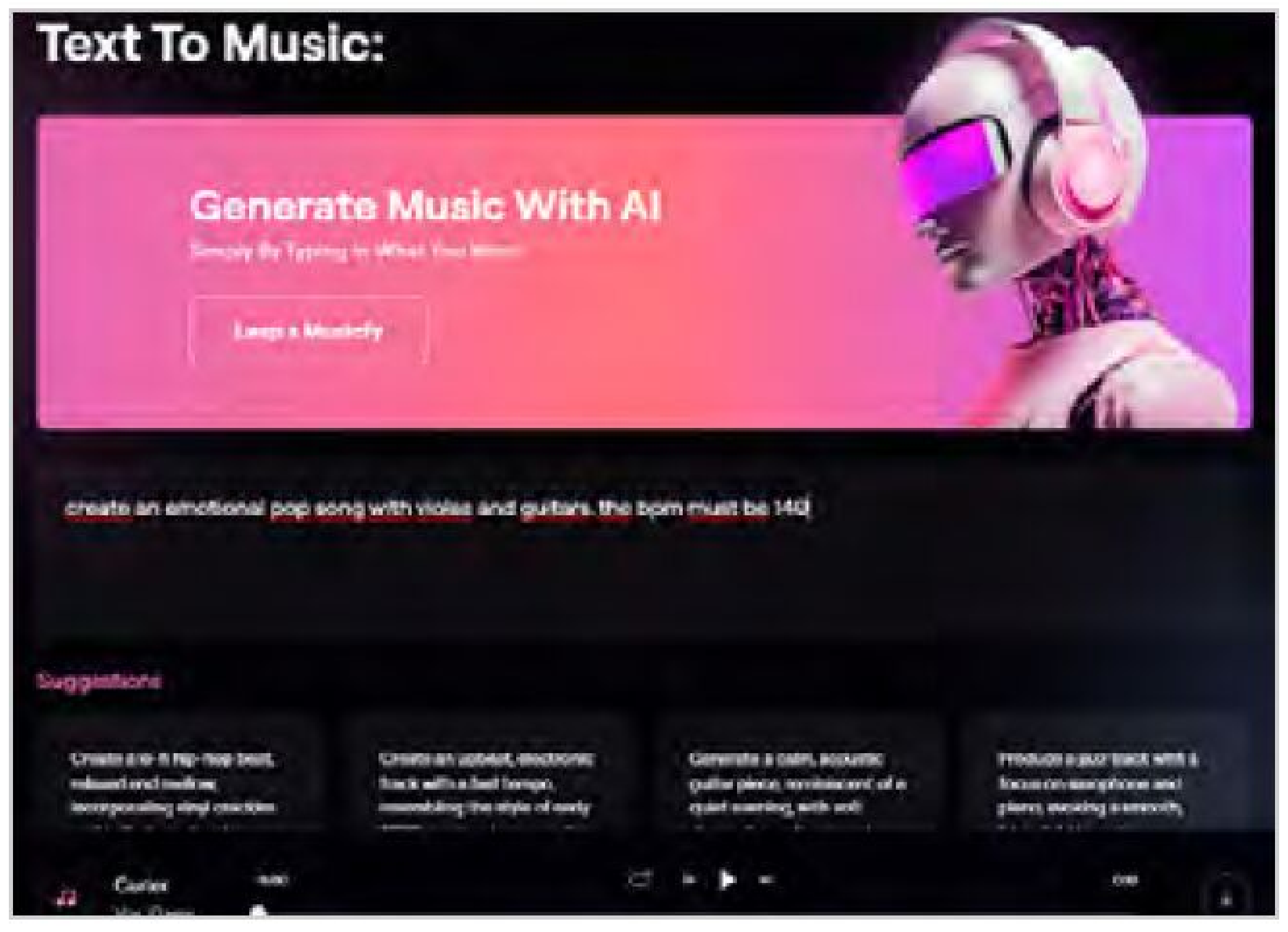
As an alternative to point 3, you can train your own model with your voice. To do this, you have to upload at least ten minutes of material and take out a paid subscription. However, if you do a lot of voice-overs, the effort can be worth it. But be sure to check the usage rights beforehand.


Advanced Settings:
Formant Shift

Set Pitch: 0

5 Transformation

After you have uploaded an audio file and selected a model, the transformation can begin. Optionally, you can minimize room tones by selecting „**Remove Reverb/Echo**". In **Advanced Settings**, you can set Pitch and Formant Shift. Clicking on **Generate** starts the process. You can listen to and save the result in the browser.


Text To Music:
Generate Music With AI
Simply By Typing In What You Want
Suggestions
Carter

create an emotional pop song with violas and guitars. the bpm must be 140

6 Generate a beat

If you are happy with your vocals, you can generate an instrumental via text input under **Create –>Text to Instrumental**. You can find a few examples of prompts below the input box. You only have to combine the acapella and instrumental manually in your DAW, but this can also be done in a few steps.

Sononym: Better than Splice?

Find suitable samples

The track is cool, the melody is distinctive, the beat grooves. Everything fits, it could just be fuller and a few suitable effects wouldn‘t be bad either. There are plenty of situations like this in everyday studio and production work. Then you have to spend hours searching the sample library for suitable sounds. Or use Sononym and find what you‘re looking for in just a few seconds. Even faster and better than with Splice!

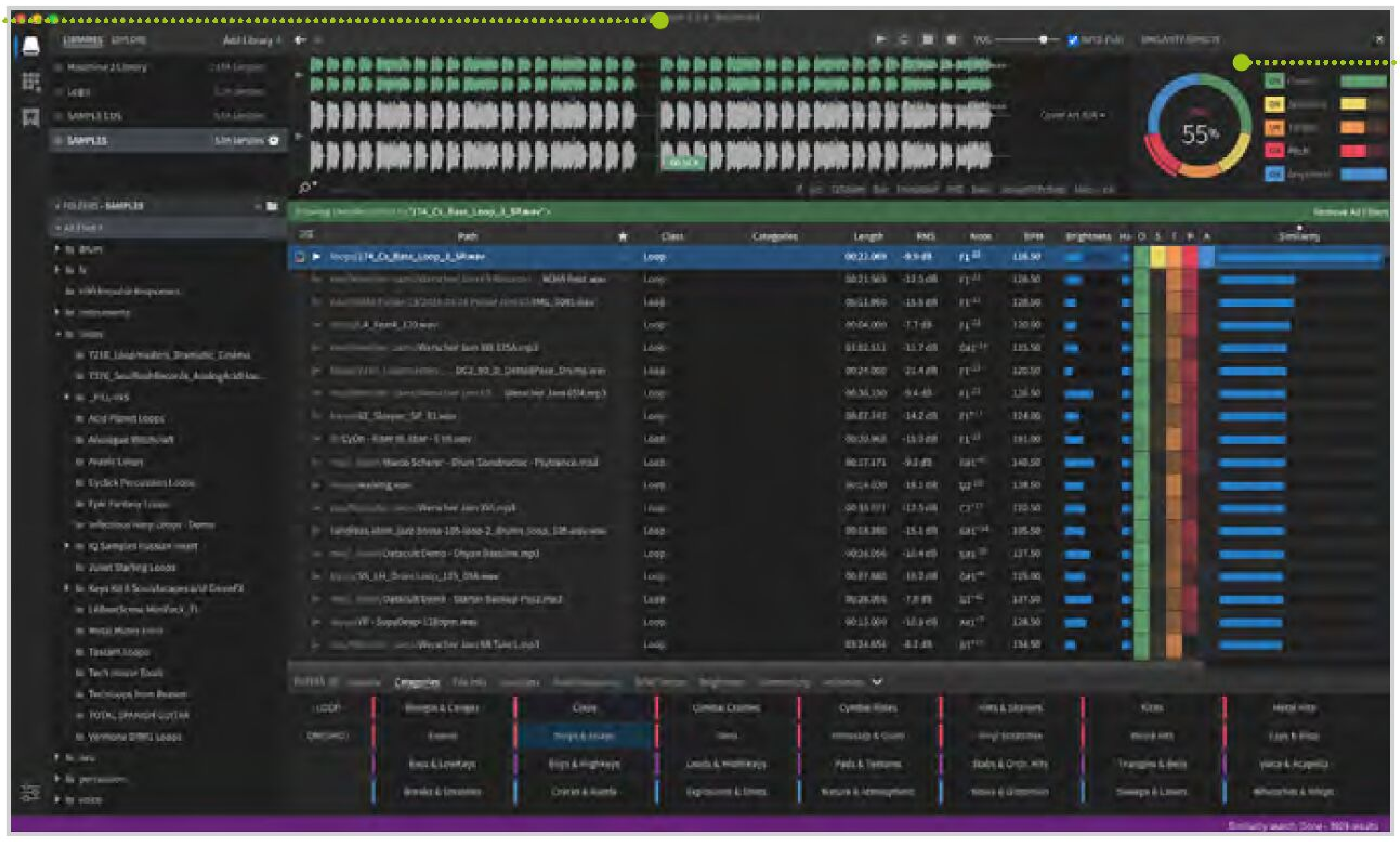
www.sononym.net

Sononym is basically a sample manager: Imported folders are scanned and their contents are divided into categories such as oneshot, loop, sweeps, snares and others. Favorites can be collected in collections and lists can be filtered by category and sorted by various criteria. However, the application goes two big steps further: Firstly, it analyzes the pitch and tempo of the samples in addition to the volume, which makes finding and sorting much easier. Secondly - and this is its real strength - you can use Similarity Search to find similar and related sounds.

With Sononym, samples do not just consist of static numbers, but are divided into brightness, harmony, noise, spectrum, mood and pitch. These properties can vary over the length of the sample, because a sung melody, for example, does not just contain the pitch C3, but the entire melody is analyzed. The same applies to groove, volume and the other properties. Accordingly, Sononym can not only find samples that have C3 as the basic pitch, but also those that contain a similar melody to the original. Or a similar groove, the same mood and so on.

The technology works impressively well. Simply select a sample and seconds later all comparable samples in your library are listed. The focus of the search - melody, mood, etc. - can be changed as desired and defined continuously from 0 to 100%. It is also possible to record sounds as a search template. This way you can „sing in“ a rhythm and the app delivers rhythmically matching loops and samples.

Similarity Search is an exceptional feature from Sononym that works impressively reliably and makes almost any manual search for sounds obsolete. In a direct comparison with Splice‘s „Similar Sounds“ function, Sononym is the clear winner, as the results are much closer and the search can be defined more precisely by melody, groove or feeling.



Waveform Display
The selected sample is displayed here. If a search is active, the sample that serves as the basis for the search is displayed above it. But there is more to it, because you can also select a section of a sample in this view and search for similar candidates for this section.

Criteria selection
The heart of Sononym: When searching for similarities, the criteria in the source file are compared with other files.

- **Overall:** Matches sounds based on a wide range of criteria.
- **Spectrum:** A snapshot of the sound that captures frequencies and movement over time.
- **Timbre:** Describes the „character“ of the sound - often referred to as color or mood.
- **Pitch:** The perceived frequency of the sound.
- **Amplitude:** The perceived loudness of the sound. This includes transients. Particularly suitable for samples with a similar groove or beat.

Listen:

We used two different loops as a basis and had the tool search using the criteria spectrum, timbre, pitch and amplitude.

Melody: Original
Melody: Spectrum
Melody: Timbre
Melody: Pitch
Melody: Amplitude

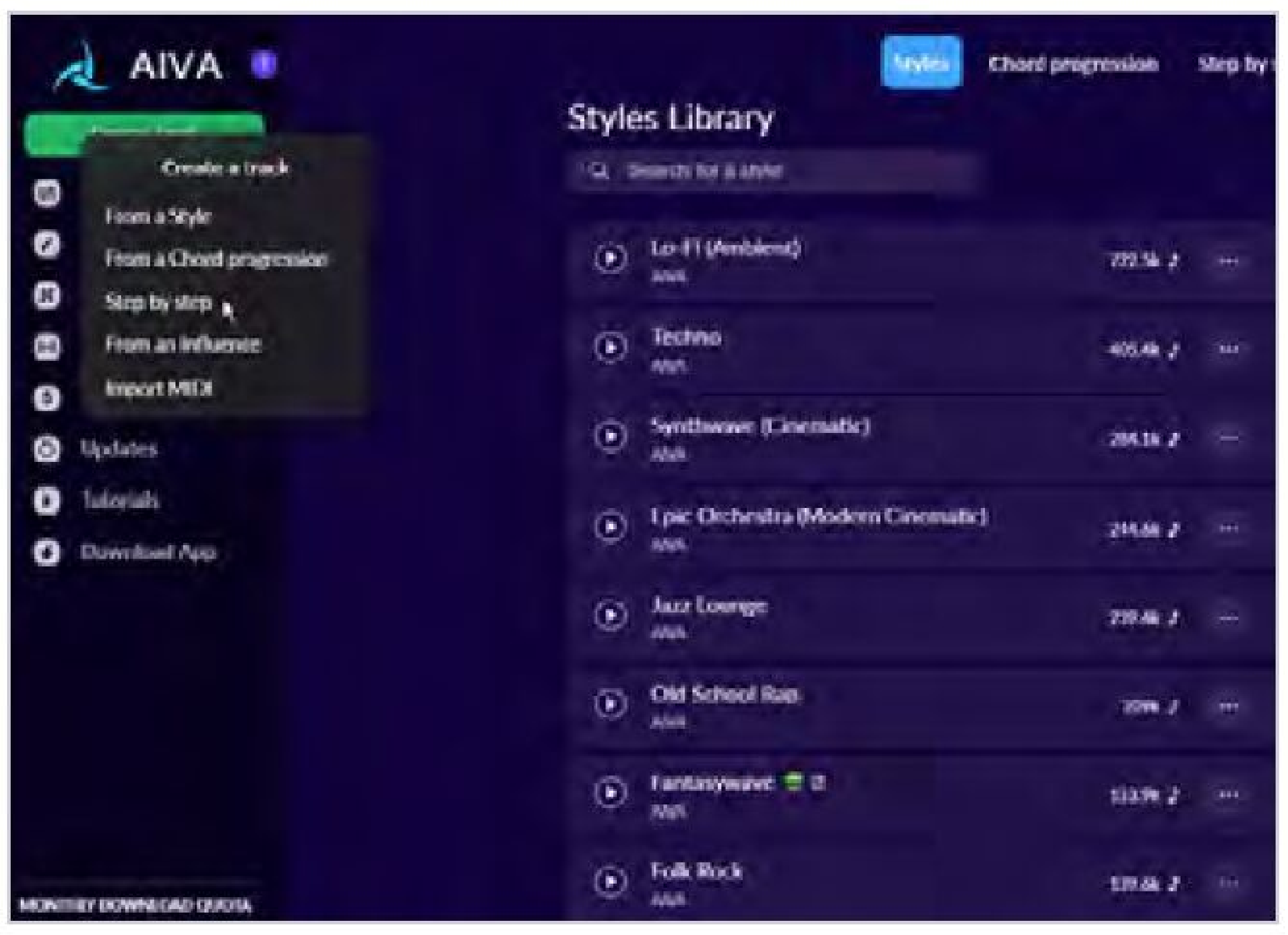
D&B: Original
D&B: Spectrum
D&B: Timbre
D&B: PItch
D&B: Amplitude

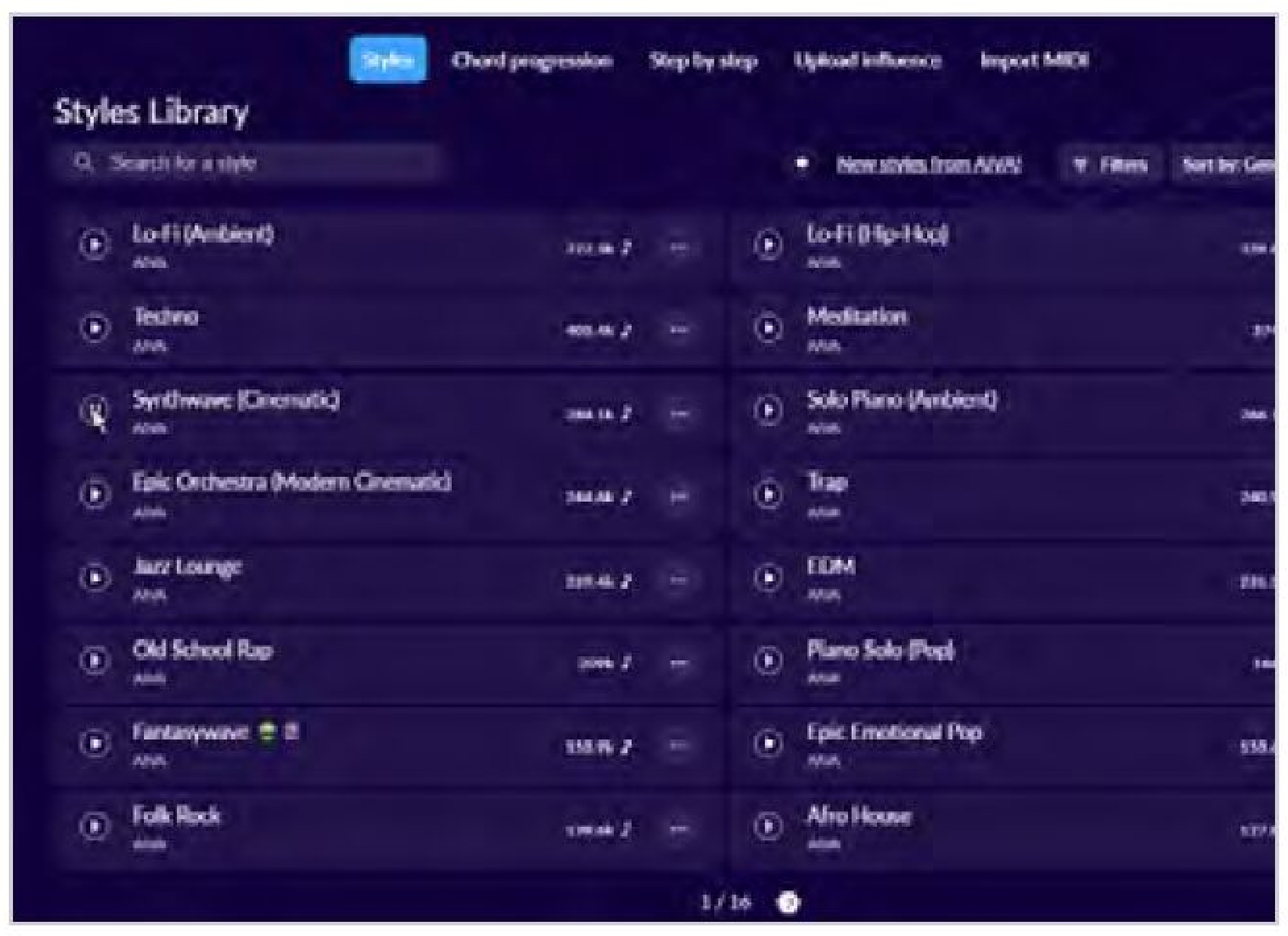
Hands-on: AIVA

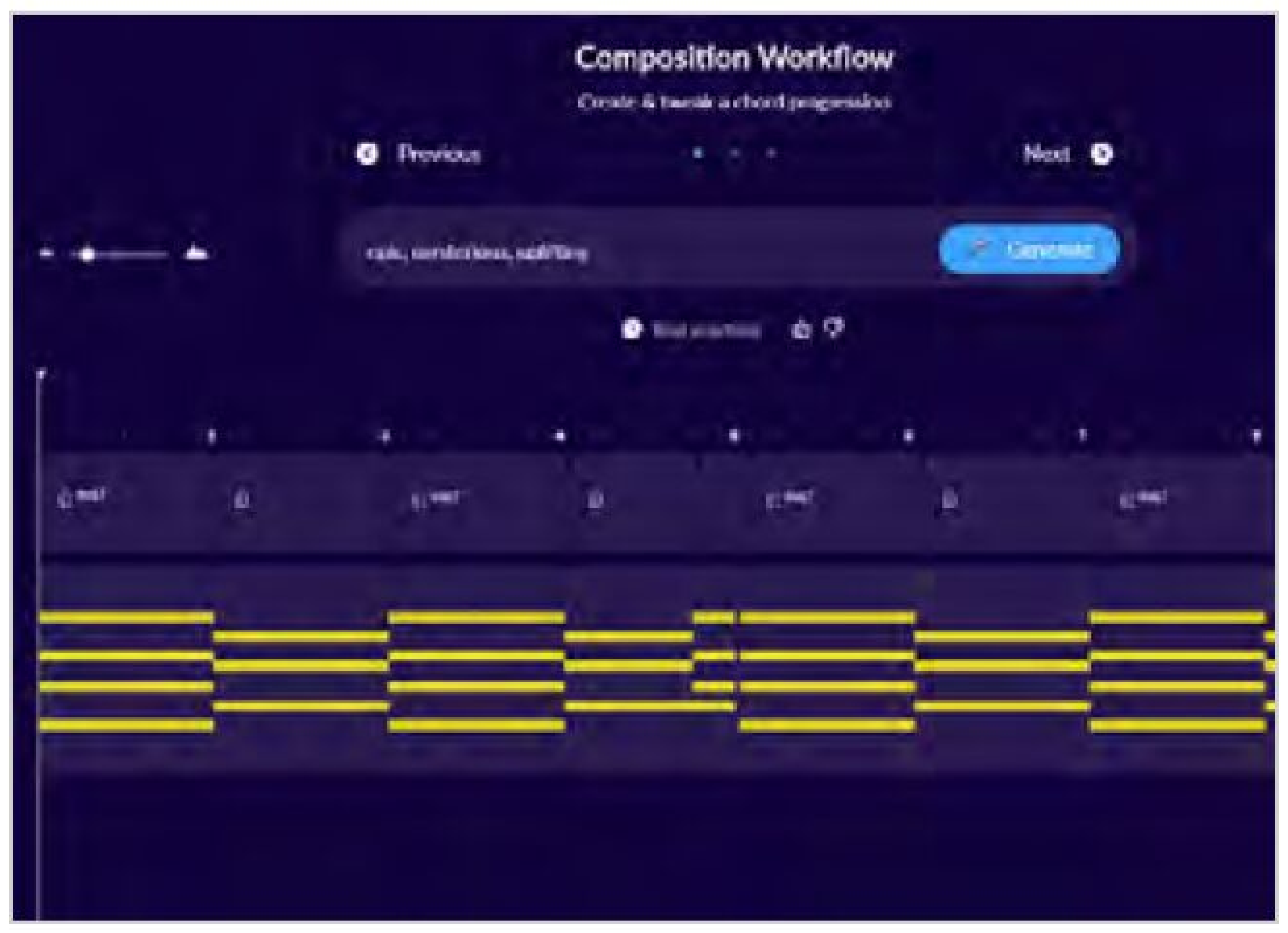
Create your composition in seconds

Score with AIVA

No idea for the next track? AIVA gives you a composition in seconds - choose the style, adjust parameters and export MIDI or WAV. The tool is particularly suitable for film, game or production music. We'll show you how it works...


AIVA
Styles Library
Create a track
From a Style
From a Chord progression
Step by step
From an Influence
Import MIDI
Updates
Tutorials
Download App
Lo-Fi (Ambient)
Techno
Synthwave (Cinematic)
Epic Orchestra (Modern Cinematic)
Jazz Lounge
Old School Rap
Fantasywave
Folk Rock


Styles
Chord progression
Step by step
Upload influence
Import MIDI
Styles Library
Lo-Fi (Ambient)
Techno
Synthwave (Cinematic)
Epic Orchestra (Modern Cinematic)
Jazz Lounge
Old School Rap
Fantasywave
Folk Rock
Lo-Fi (Hip-Hop)
Meditation
Solo Piano (Ambient)
Trap
EDM
Piano Solo (Pop)
Epic Emotional Pop
Afro House
1 / 16


Composition Workflow
Previous
Next
epic, mysterious, uplifting
Generate

1 Create a track

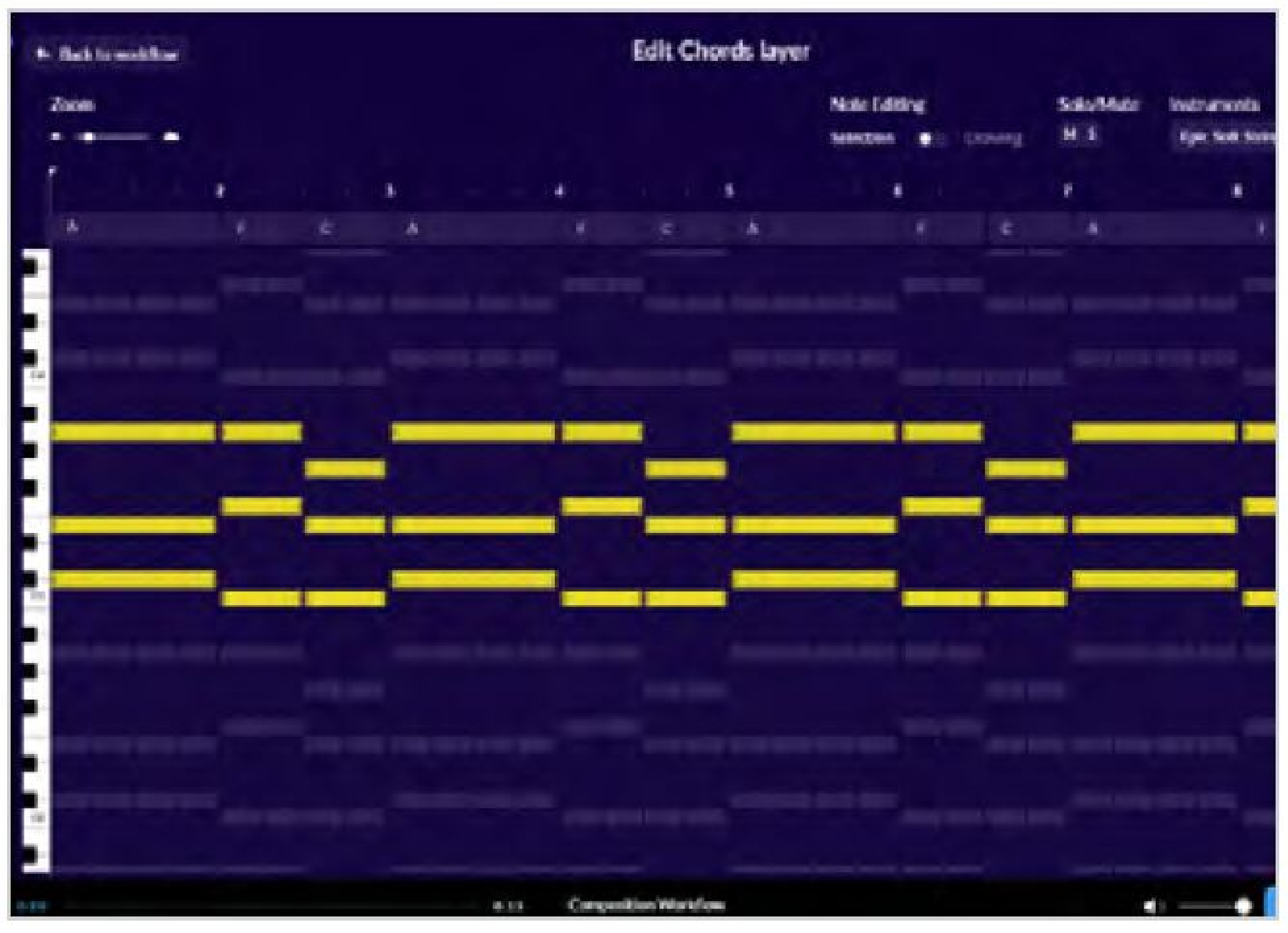
Before you can get started with AIVA, you first need to create an account on aiva.ai. You can also log in with your Gmail address. Can't wait to create your own track? Well, let's get started! To do so, click on **Create a track**. Here you can choose between different options.

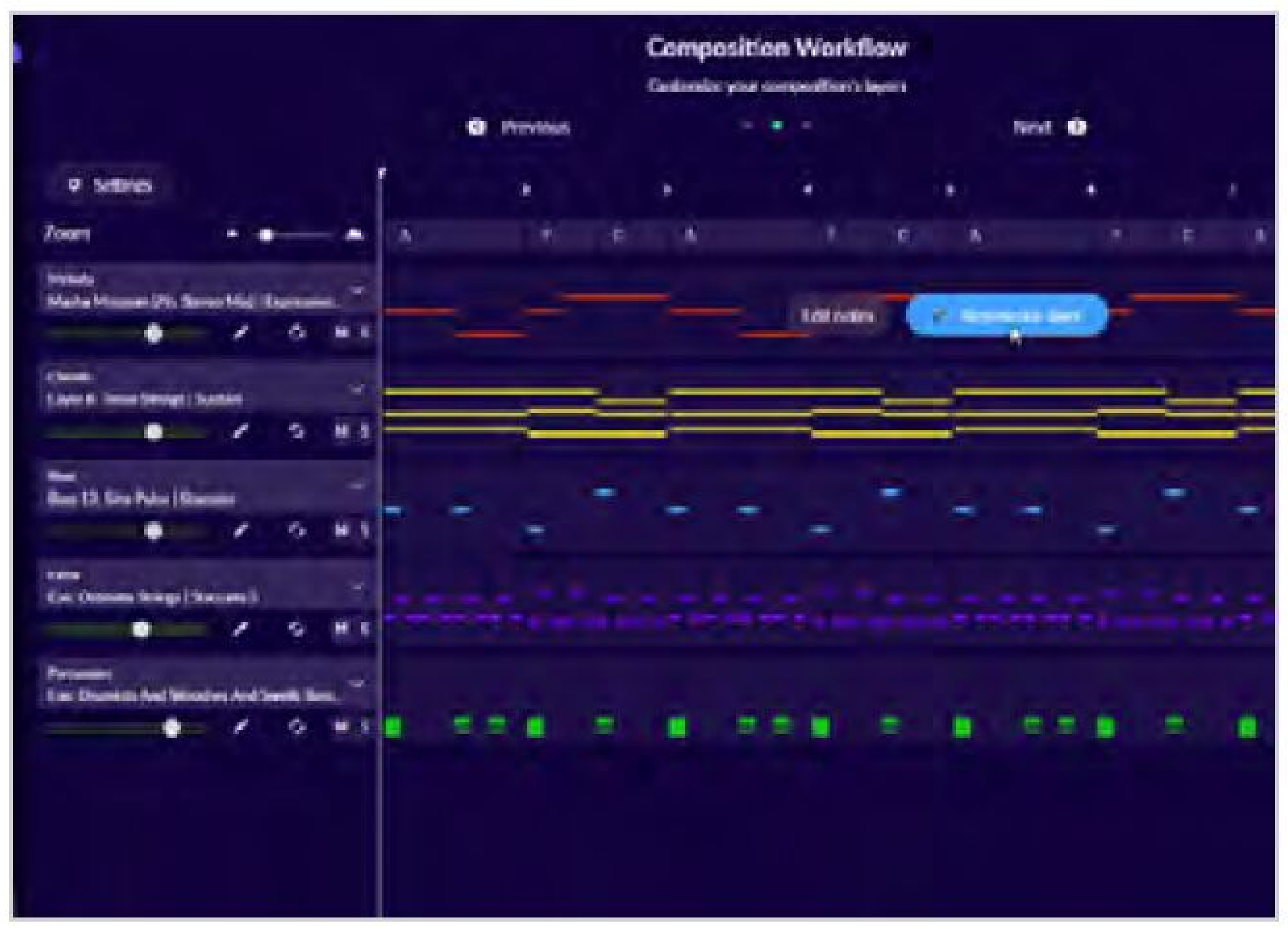
2 Which style?

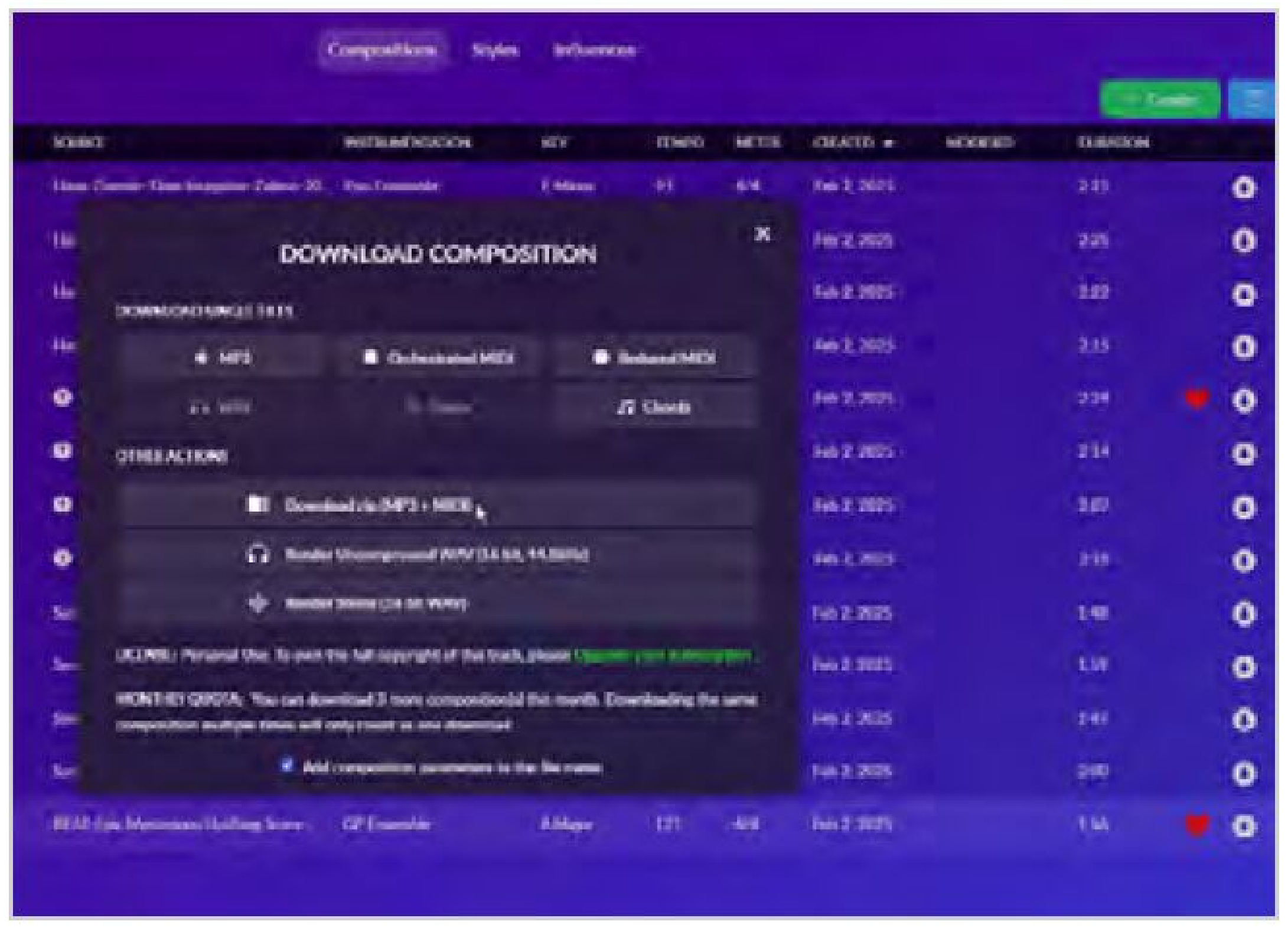
The option **Create Track: Influence** lets you generate a composition based on an audio or MIDI file. We choose **Create Track: Step by Step** so that we can design our track in detail. First, choose a **style** that suits you, such as „Epic Orchestra (Modern Cinematic)". You can preview the styles directly.

3 Chord progression

In the next step, you determine your chord progression. Enter a description such as „epic, mysterious, uplifting" or select the individual chords freely. Unfortunately, the real-time preview of the chord progression did not work for us in the Chrome browser. AIVA recommends using the desktop app for Windows, MacOS or Linux. Then click **Next**.


Back to workflow
Edit Chords layer
Zoom
Note Editing
Solo/Mute
Instruments
Composition Workflow


Composition Workflow
Previous
Next
Settings
Zoom
Melody
Chords
Bass
Percussion
Edit notes
Regenerate layer


Compositions
Styles
Influences
DOWNLOAD COMPOSITION
MP3
MIDI
OTHER ACTIONS

4 Arrangement

Now the magic happens: AIVA creates an arrangement with several layers from these specifications, which you can see in the **composition workflow**. The different layers such as melody, chords, bass and percussion are now shown in an arrangement and you can determine the instruments used and also edit the MIDI notes in detail.

5 Editing in detail

If you don't like the sequence of a layer, you can recreate it using **Regenerate Layer**. In the next step, you can specify the name, duration and number of your compositions and then generate them using **Create Composition**. This takes a moment, then you can listen to your creations in the **Compositions** window.

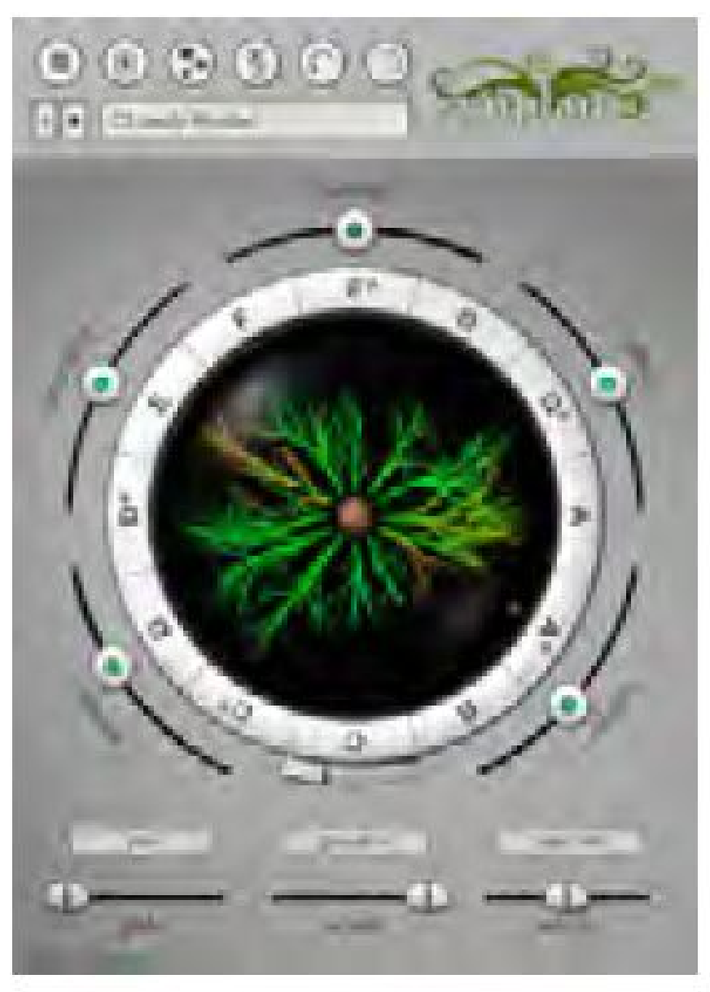
6 Export

If you like one of the compositions, you can export it as a MIDI and audio file including stems. And this is where the fun really begins, because with high-quality sample instruments your compositions will shine in all their glory. However, full copyright and unrestricted monetization are only available with the Pro account for 33 euros a month.

The 6 Best AI Tools for sound design

Sonic Charge

Synplant 2

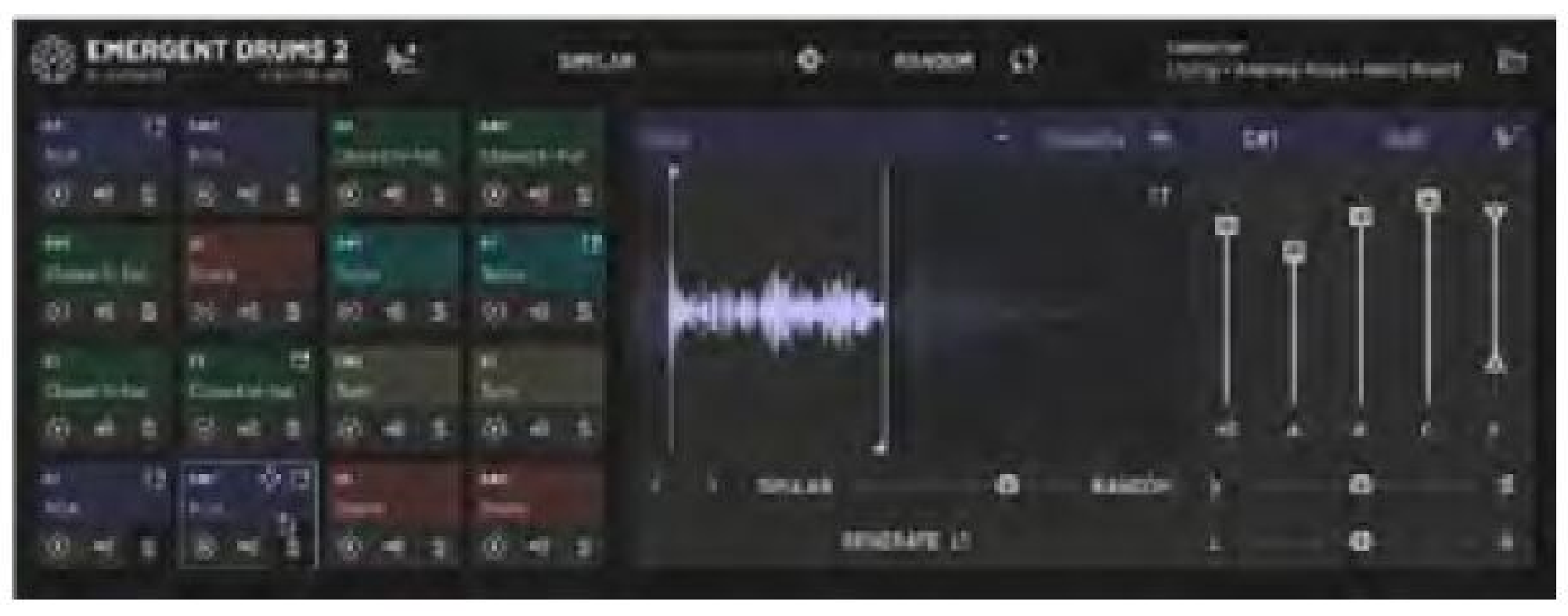


Synplant 2 from Sonic Charge offers Genopatch, an AI-supported function for creating derivatives of a sample stored by the user. Based on machine learning, the plug-in generates new sounds that are more or less the same as the original. If you like a sound, you can plant it as a „seed“ and edit it further. The main window with macros is available for this purpose. The „DNA“ editor also gives you access to traditional synth settings such as filters, envelopes and effects, which can be edited manually. This gives you an infinite sound pool, the contents of which you can fine-tune by hand if necessary. The price for this synth is therefore justified.

www.soniccharge.com | **Price: 149 Euro**

Audialab

Emergent Drums 2

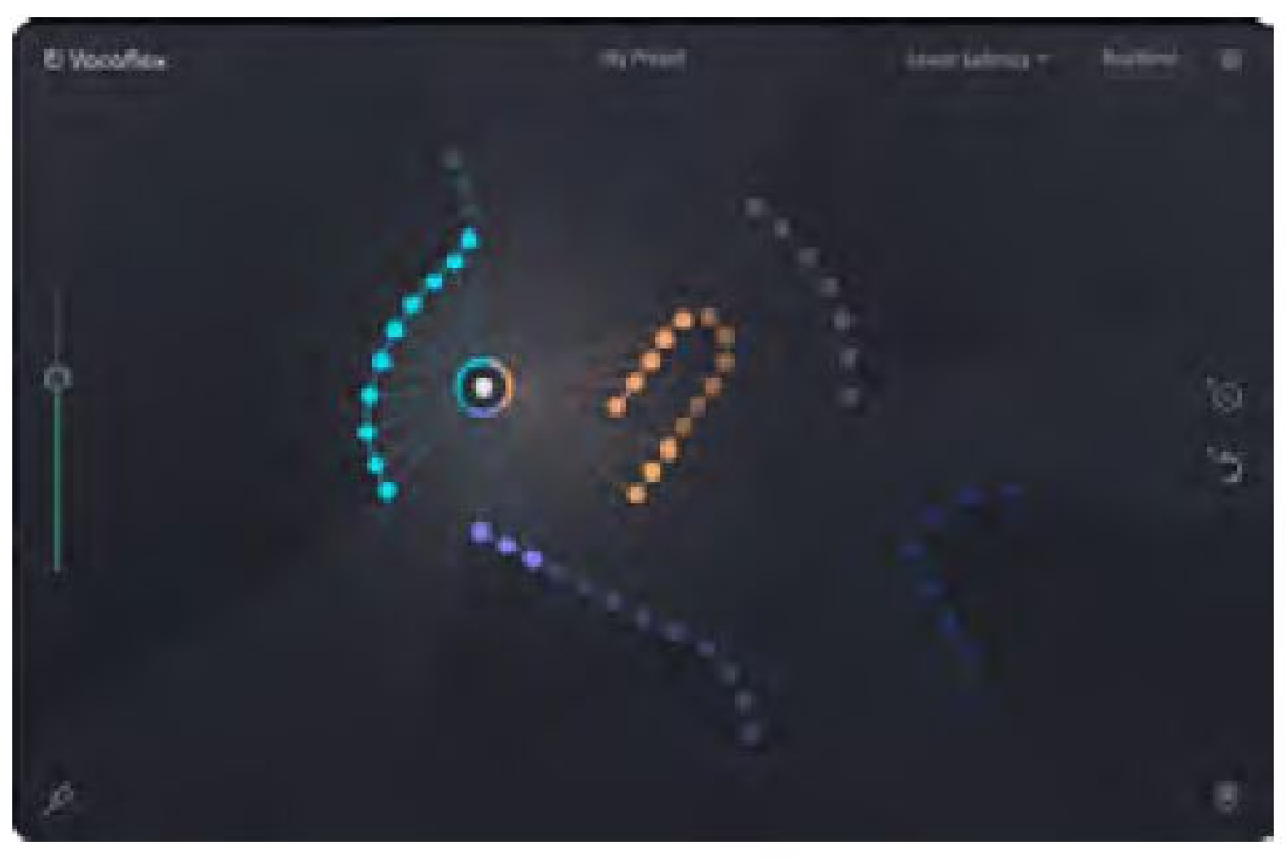


License-free drum sounds for life! That‘s what Audialab promises with Emergent Drums 2. The tool uses AI to generate samples based on the instrument you‘ve set. The plug-in can even create a complete kit using the 16 slots or pads. The sounds are reminiscent of drum machines, but the manufacturer claims that no original recordings are used to generate the samples. You can influence a sound using faders for volume, attack, release, clip, filter and pitch. Due to the rather synthetic-sounding sounds and the internet connection required to generate the samples, the tool is currently too expensive, because you can buy a lot of sample packs for around 200 euros...

www.audialab.com | **Price: 199 USD**

Dreamtonics

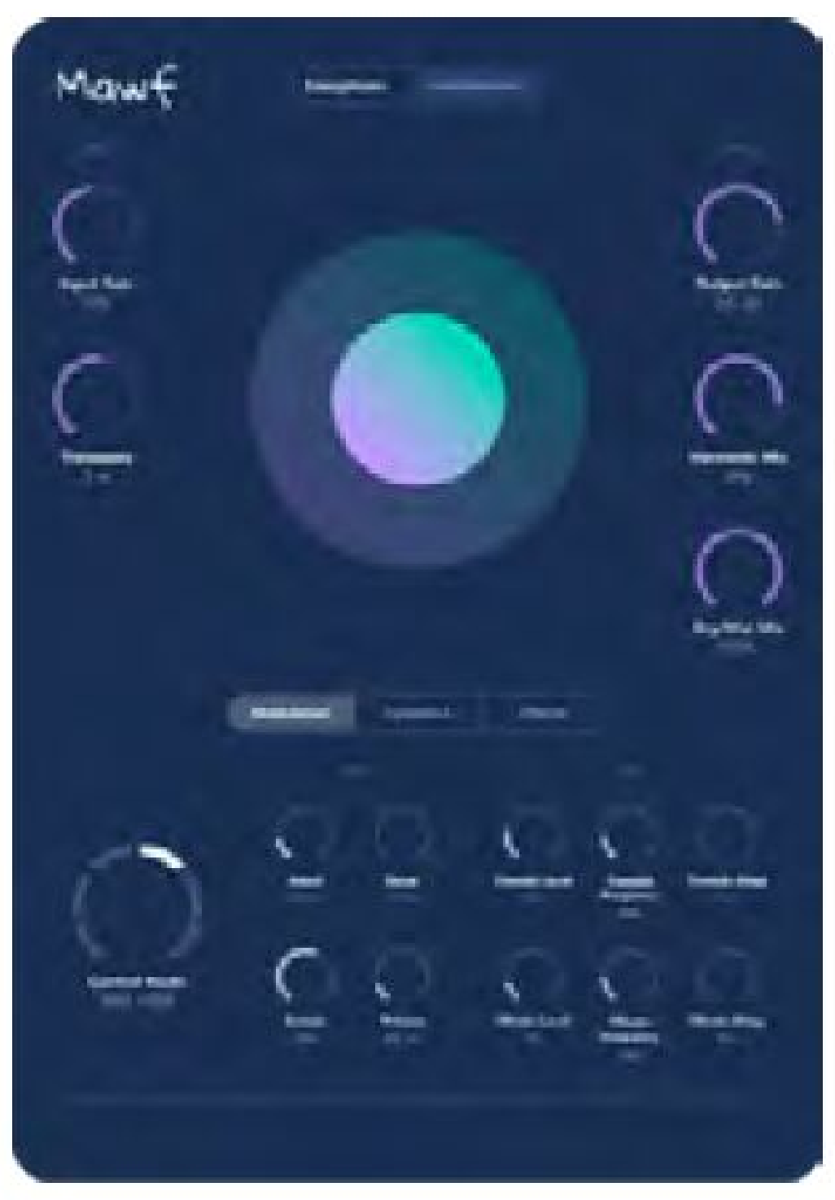
Vocoflex



Vocoflex uses both AI and machine learning to generate synthetic vocal recordings or to match a recording to an existing one. By analyzing and modeling parameters such as pitch, rhythm, and expression, the tool can create amazingly realistic-sounding vocals. The generated voices aren‘t bad, but they don‘t come close to humans in terms of emphasis, emotion, and speech flow. But who says you can only use voices? It‘s up to you which sample you give Vocoflex as a template, which opens up possibilities for sound experiments.

www.dreamtonics.com | **Price: 199 USD**

Mawf

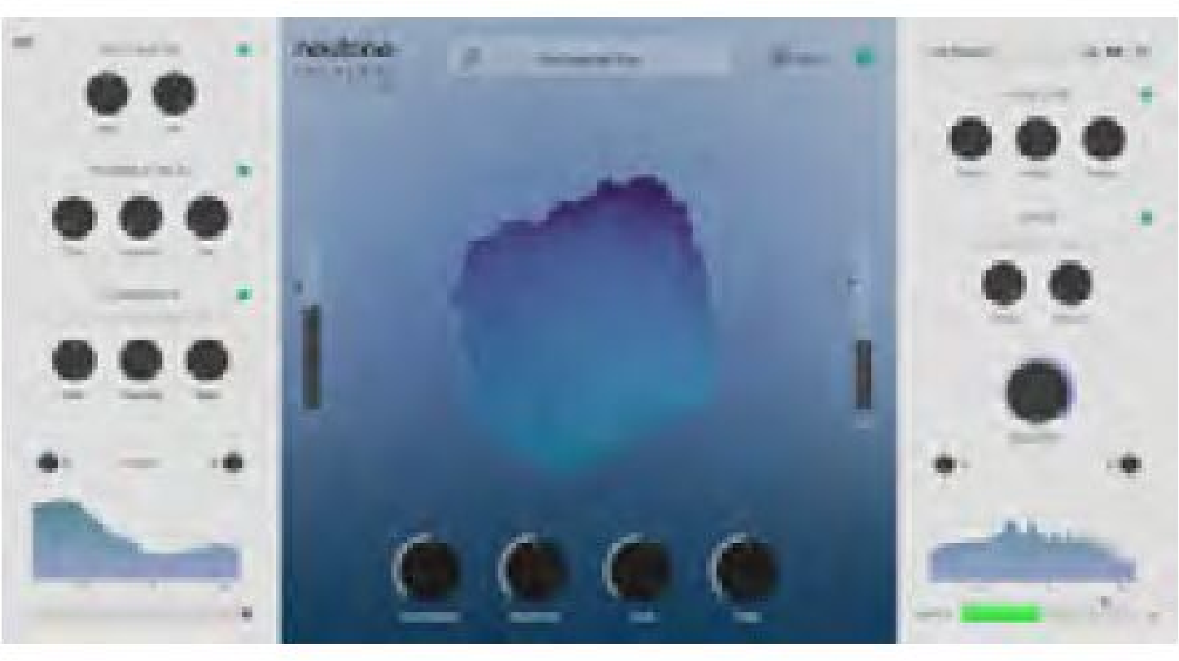


Mawf is currently still in beta, but already has impressive features. As the name suggests, the tool uses machine learning to transform input signals into any output signal. For example, a guitar can be transformed into a saxophone. Or a hummed melody into a piano piece. The corresponding models/instruments are included in the scope of delivery. You can manipulate the result to your taste using various controls. You can choose from sections for modulation, dynamics and effects, among others. Although the tool is still in development, it already works quite well. The freebie is definitely worth a try!

www.mawf.io | **for free (Beta)**

Neutone

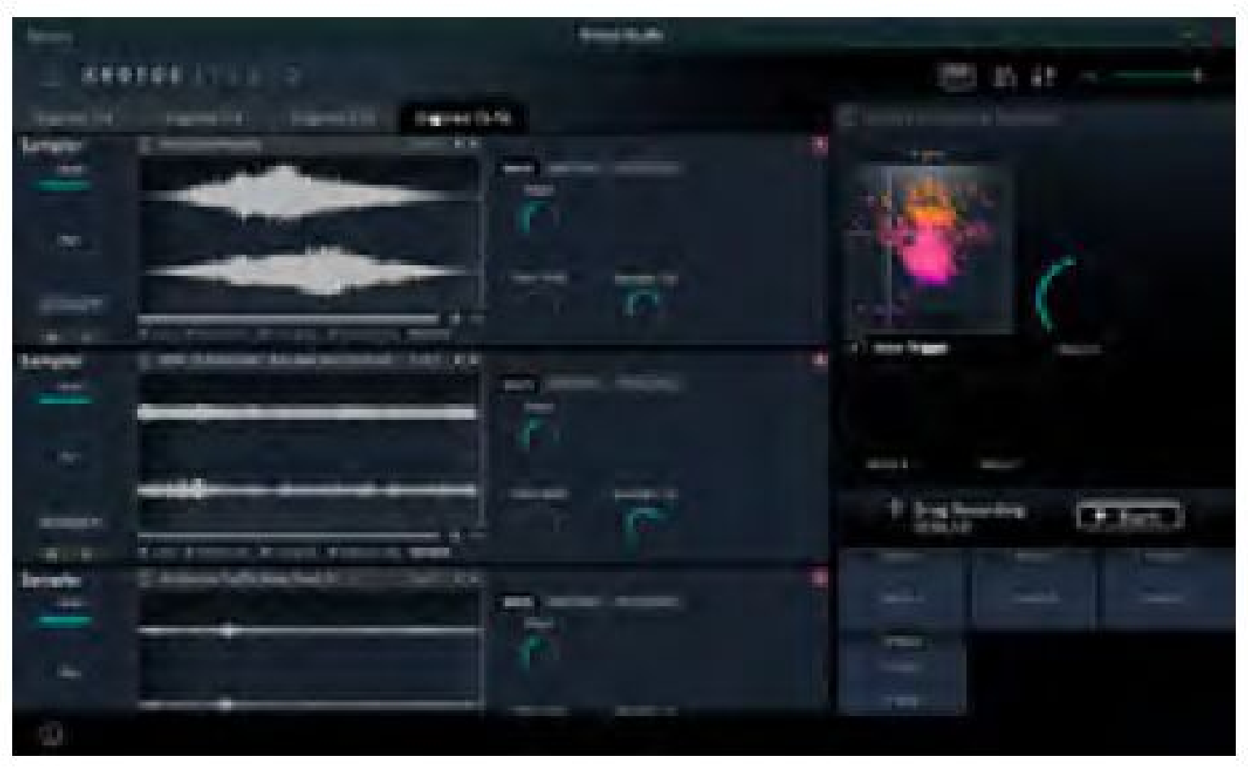
Morpho



Morpho by Neutone follows the same approach as Mawf. The tool receives an input signal and transforms it into a different sound using a selected model. Unlike Mawf, however, Morpho also allows you to create your own model for a fee. In terms of settings, you can not only control effects and dynamic processors in Morpho, but also the transformation itself. This is done either via the four macro controls or via the six sliders located behind the interactive cloud. Neutone is available as a free, starter and full version, each containing five, ten and 31 models respectively. Anyone interested can only be advised to get an impression and experiment with the free version.

www.neutone.ai | **Price: from 0 Euro**

Krotos Studio

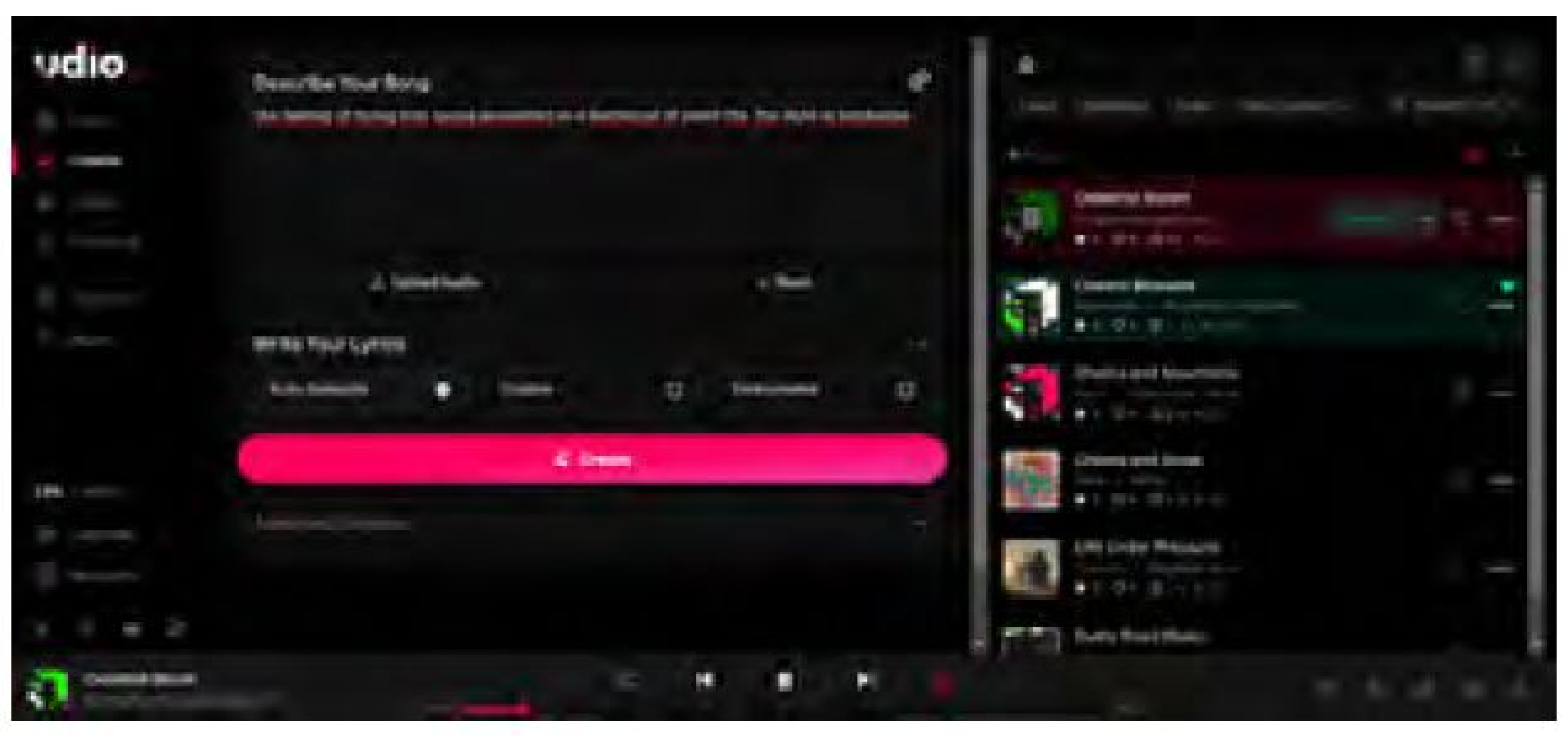


Krotos Studio is a tool for finding and creating sound effects. The software does not use generative AI, but simply combines the existing samples into a morphable collection. There are various categories to choose from, such as ambiences and weather. You can use an XY pad to morph between sounds in real time. When driving from a city to a forest, for example, traffic noise can be reduced and nature sounds can be amplified. The standard version only offers rudimentary editing options. The Pro version, on the other hand, allows in-depth adjustments and the addition of your own sounds. If you work a lot in the cinematic field, Krotos Studio will save you time and effort.

www.krotos.studio | **Price: from 9,99 Euro/month**

The 6 best AI tools for songwriting

Udio



The online platform Udio generates complete songs based on text input, from the drums to the vocals. All you have to do is define the genre and theme. One click and a few minutes later the tool spits out your finished song including the cover and video. The output can serve as inspiration for us music creators. Conveniently, you can also download stems of your generated tracks and use just a melody or bassline, for example. Or even have an intro generated. The possibilities are diverse. With the free account you can experiment and find out for yourself whether Udio is a helpful addition to your music-making.

www.udio.com | Price: from 0 Euro

Fadr

SynthGPT 2

SynthGPT 2 from Fadr is a plug-in specifically designed for sound generation. Just like Udio, you feed it with text input. As a synthesizer, the tool can generate all kinds of sounds, with the focus on melodic and flat sounds such as pianos, pads and the like. For each input, 100 presets are generated from which you can choose your favorites. A few rudimentary settings are also on board: a filter and an ADSR envelope. In fact, the only difference to clicking through presets from traditional synthesizers is that you don‘t have to search for the category, but specify it via a prompt. SynthGPT is only available with the Fadr Plus subscription - the ten euros a month are better invested elsewhere.

www.fadr.com | Price: 10 USD/month

Mixed in Key

Cpt. Plugins Epic

Mixed in Key Captain Plugins Epic is a collection of five tools that use AI for songwriting. In principle, the suite is like InstaComposer, only with dedicated plug-ins for generating drums, basses, melodies and chords. The fifth plug-in, Play, is a key lock for your keyboard or MIDI keyboard - and is superfluous, because most MIDI keyboards and DAWs have this function integrated. With the other tools, you can generate sounds and MIDI patterns at the touch of a button, which can be customized in terms of velocity, rhythm and swing. With over 250 integrated instruments, you get an extensive sound library and can also export loops directly as an audio file. The price for this package is fair.

www.mixedinkey.com | Price: 99 Euro

W.A. Production

InstaComposer

InstaComposer is similar to Udio, but is more geared towards music producers. The plug-in cannot generate lyrics, but it can generate MIDI sequences for all necessary instrument groups. You can generate drums, melodies, basslines, etc. depending on the scale and tempo and send them to your DAW as multi-outs. The tool also offers various settings to fine-tune the results. For example, you can specify the randomness of the velocity and the length of the notes. If you like an instrument, you can lock it and only regenerate the others. Thanks to the high level of flexibility, InstaComposer gives you tailor-made results that justify the price of just under 100 euros.

www.waproduction.com | Price: 99 USD

EVAbeat

Melody Sauce 2

With Melody Sauce 2 from EVAbeat you can create melodies by specifying a scale and style. Just like with InstaComposer, you can manually adjust the pitch, groove and chord progressions, among other things. You can also select the timbre (dark/bright) and the complexity of the patterns and add harmonisations. If you don‘t like the sounds provided, you can drag the MIDI files into your DAW, use them differently and of course edit them. In addition, you have three rudimentary internal effects at your disposal: reverb, delay and chorus. At around 60 euros, however, the plug-in costs a good half of InstaComposer. And Melody Sauce 2 is much better.

www.evabeat.com | Price: 59 USD

Magenta

Studio

Magenta Studio is a free plug-in suite for Ableton Live. Compared to the paid tools mentioned above, Magenta Studio is more limited in terms of functionality, but offers different approaches. For example, you can combine two input signals and create clips from them, or add variations to an existing sample. However, only monophonic melodies can be processed and drum inputs follow a fixed MIDI mapping. A MIDI generator for drums and melodies and a handful of setting options are also on board. The patterns created sound very mechanical, however. As a source of inspiration or for creating simple beats and melodies, this free tool is still worth a try.

www.magenta.tensorflow.org | Price: for free

In touch with Thomas Foster

8 questions to the AI expert

Music producer, composer and author Thomas Foster has a passion for innovative technologies. He recently published a book on the topic of AI in music production. Reason enough to ask him about the role of AI in music, creative processes and the future of the industry.

Beat / Your book makes it clear that AI is changing music production forever. What was the main reason you decided to write this book? Was there a personal experience that shaped your view of AI?

Thomas / At a very early stage, I experienced how AI suddenly made things possible that we previously thought were unthinkable - for example, creating artificial singing. The sound wasn‘t perfect at first, but the potential was immediately noticeable. As someone who is intensively involved with technology and regularly exchanges ideas with experts at trade fairs, conferences and through YouTube videos, I recognized that AI is probably ushering in the greatest technological revolution of our time. It was clear to me that this would also change music production more than was already the case with the switch from tape recorders and mixing consoles to DAWs. Since I always wanted to be on the pulse of the times, it was only logical for me to make AI a main topic in my YouTube videos - and this eventually gave rise to the idea of writing a book. I wanted to present the new possibilities that AI offers for music in a compact format and share my enthusiasm for it with others.

Beat / Which AI tools for music production are essential for you?

Thomas / Dreamtonics Synthesizer V for vocal generation, Audimee for vocal editing, iZotope Neutron 5 for sound optimization and mixing and XO from XLN Audio for finding the right drum sounds.

Beat / What role does AI play in your own productions? Do you use it mainly for technical tasks such as mastering or also for creative processes such as composition and sound design?

Thomas / For me, AI has become indispensable in many areas of music production. I find the ability to generate realistic-sounding vocals or even complete choirs particularly exciting. This not only saves time, but also gives me creative freedom when there is no suitable singer available. At the same time, I use AI tools for songwriting, especially for English lyrics. My own English is often not sufficient for this, and this is where AI is a huge help. When composing, I also experiment with platforms such as Suno or Udio, which can suggest entire songs in just a few seconds. Of course, this can mean a certain amount of competition for us artists, as AI can access gigantic amounts of data. But just as the calculator has made calculations easier, I see no point in ignoring these tools - why not use what is available? AI-powered tools also do a valuable job in my podcast, improving less than perfect voice recordings so that they sound almost like they came from the studio. This is just the beginning - but it is already making music production faster, more flexible and more creative.

> » If we understand what AI can do and integrate it purposefully into our workflow, it can actually enhance our vision rather than dilute it. «

Beat / Do you have any tips on how to integrate AI tools into the creative workflow?

Thomas / The integration of AI depends heavily on individual needs and preferences, because music production is incredibly versatile. In my book, I therefore wanted to show what AI can already do today and how it can be used in a targeted manner. I present various tools for different areas, explain their basic functions and also offer QR codes to YouTube videos in which I demonstrate the tools in practice. My goal was to give interested people a quick and clear introduction without having to struggle through countless websites and instructions.

Beat / ***Your book focuses on the balance between AI and a musician's signature style. How do you ensure that your own creative vision is not diluted by AI tools?***

Thomas / I see AI as an extension of my musical expression rather than a threat to my creative vision. In the past, new technologies such as multi-track tape and later DAWs also caused a stir - today we know that these developments have enabled entirely new musical genres.

AI tools are great at analyzing and reproducing existing musical styles, but truly groundbreaking ideas still arise in the mind of an artist. If we understand what AI can do and integrate it purposefully into our workflow, it can actually amplify our vision rather than dilute it. I am convinced that in the end, it is always people who provide the decisive impulses to create truly new sound worlds - and I really want to be one of those who exploit these possibilities.

Beat / ***What does your ideal creative partner in the form of an AI look like?***

Thomas / My ideal AI partner would be seamlessly integrated into my DAW and would take on creative and technical tasks on demand - such as replacing instruments, layering sounds or expanding arrangements. I want to work intuitively: If I have a piano riff, the AI should be able to expand it into a house track with suitable synth sounds. Or a hand-played melody could immediately be transformed into a complete orchestral arrangement.

Of course, future tools could go much further and enable completely new workflows that are not even imaginable today. Even though I often base my work on classic production processes, I see AI as having the potential to fundamentally change the way we make music - and that is exactly what makes the development so exciting.

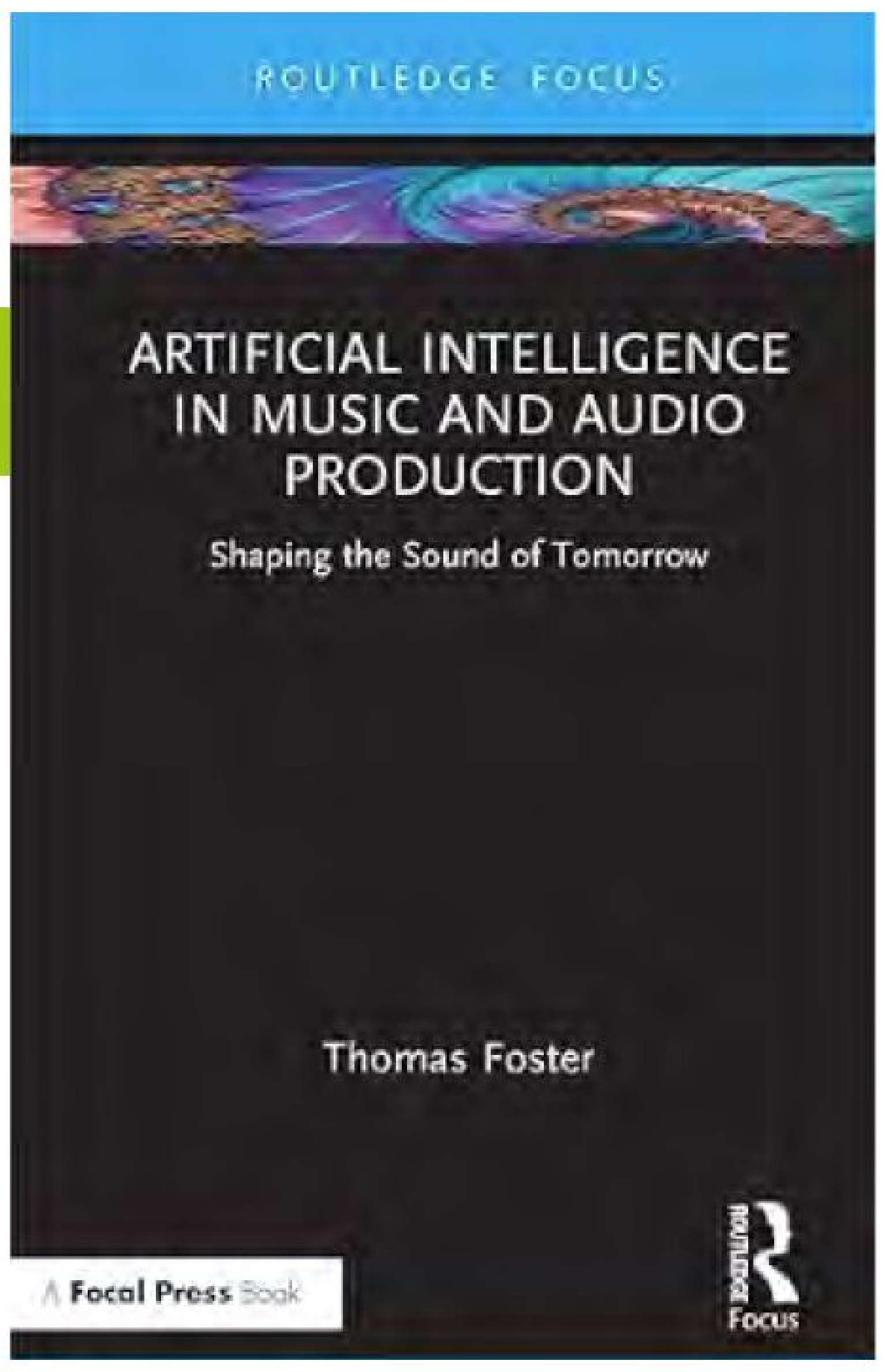
Beat / ***In the book you also address ethical questions surrounding AI and copyright. Do you think that intellectual property and creative works are sufficiently protected?***

Thomas / I don't think that creativity and copyright are currently sufficiently protected. AI will fundamentally change the entire music market - from production to distribution. That is why we should urgently adapt our laws instead of relying on regulations that date back to a time before AI. The fact that institutions such as GEMA have already filed lawsuits against OpenAI and other AI providers at least shows that people are paying attention and trying to react to the new developments. Nevertheless, we are all still at the very beginning and it will take time until a legal and ethical framework is established that both protects the interests of creatives and enables innovation.

Beat / ***In the book, you outline a future in which AI merges directly with human creativity. How do you see the role of musicians and producers in such a future?***

Thomas / I believe that in the future, AI will be able to take on any role in which we as musicians or producers reach our limits - be it writing lyrics in a foreign language, singing a song or creating complex harmonic sequences. This will enable anyone who has a creative idea to realize a fully produced track, even if they do not have all the technical skills. Despite all these possibilities, I am convinced that in the end, human emotion will decide. AI can support us and remove technical hurdles, but the artistic vision and the „heart" of music come from us humans. Only when we feel the personality behind a work does a song really touch us - and that will not change in the age of AI.

Book recommendation


ROUTLEDGE FOCUS
ARTIFICIAL INTELLIGENCE IN MUSIC AND AUDIO PRODUCTION
Shaping the Sound of Tomorrow
Thomas Foster
A Focal Press Book
R
Focus

Thomas Foster

Artificial Intelligence in Music and Audio Production

Will AI replace musicians - or make them more creative than ever before? This question is the focus of Thomas Foster's new book. The Austrian music producer, composer and YouTuber shows how artificial intelligence is changing music production - and how musicians, producers and composers can benefit from it.

The author begins with an overview of AI-supported music tools such as SUNO, UDIO or Musicfy, which can be used to generate complete songs - often with astonishingly convincing results. Will artificial intelligence soon be able to write better songs than we do? This is exactly what Thomas Foster tests with practical examples and exciting analyses. The book is also a treasure trove for experienced producers. It explains how AI is revolutionizing audio processing and optimization as well as mixing and mastering and can also be used profitably in sound design and DJing. The chapter on the legal situation is particularly valuable: Can you pass off an AI-generated song as your own? And what if an AI voice sounds like Madonna or Ed Sheeran? Foster illuminates these gray areas in an understandable and practical way.

Verdict

Whether you're a newbie or a professional, this book inspires you to see AI not as competition, but as a musical partner. It not only shows what is possible, but also provides helpful tips on how to use it. It quickly becomes clear that AI is not a substitute for creativity, but a powerful tool that can make workflows much easier. The video tutorials available for almost all tools are much more than just a bonus. QR codes in the book take you directly to the explanatory videos - a clever addition that makes the content even clearer. The book is published exclusively in German. If you can read it and are interested in the topic, we recommend the book without reservation.

Author: Thomas Foster
Title: Artificial Intelligence in Music and Audio Production
Web: www.fosterkent.com
Price: 40 Euro

Rating: 🟩🟩🟩🟩🟩◧

Digital Culture: AI and Creativity

Music is no fun!

Producing music is no fun and is far too time-consuming. At least that‘s how financially strong entrepreneurs see it and want to give this tedious task a helping hand with AI. Meanwhile, the old music industry is preparing for the final breakthrough of intelligent creative technologies. What exactly is going on here?

Common enemies are important. As much as you may despise them, they bring people together and release energy. In this sense, you have to be grateful to Mikey Schulman. The CEO of the AI company Suno stated in a podcast that it was particularly important to him to finally make making music more enjoyable. When the host Harry Stebbings asked in astonishment what exactly he meant by that, Shulman replied: „Making music is no fun at all... you have to invest a lot of time, you have to practice a lot, you have to be really good at an instrument or production software. I think that most people don‘t enjoy most of the time they spend making music.“ [1] A bold thesis that immediately unleashed a storm of media indignation. Of course, Schulman‘s statement is absurd and he deserves the ridicule that subsequently rained down on him. Paradoxically, however, if thought through to the last consequence, it is probably true. Who exactly will win the race is still an open question - but a lot will change very soon.

Anyone can be a musician. This vision is getting closer and closer.

State of constant excitement

Further indications of this can be found in the activities of the major labels, which are in a state of constant excitement in the face of composing and producing AI. The media group Universal in particular is doing everything it can to reassure its own investors with a broad-based strategy. Apparently the aim is to signal that the company is positively facing the challenges and potential of artificial intelligence. Nevertheless, the campaign is primarily focused on damage limitation. A key concern is to calculate the part of AI productions that can be exploited under copyright law in order to be involved in it. Amplify, a software that comes from the tech department of the legendary French experimental music studio IRCAM, is a first promising solution. With the help of Amplify, rights holders should be able to identify which originals an AI was trained on in order to then be able to assert their own claims. This is probably too expensive for private musicians – the starting price for the cheapest package is 500 euros per month – but for the media giants it is a worthwhile investment. [2]

At the same time, Universal is currently negotiating with manufacturers in the production software sector about remuneration for the use of AI

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[1] https://www.youtube.com/watch?v=EOYL83U5VWk; [2] https://www.ircamamplify.io/product/ai-generated-music-detector

> The fact that AI will be a central component of the DAW of the future is hardly up for debate anymore. It is not the „if“ that is up for debate, but only the „how“ and „when“. «

in their products. Since only a few now dispute that almost all models were trained on human, copyrighted works, the majors insist that their use in the applications is compensated financially accordingly. In other words: If someone lets an app generate a new beat in their DAW, then a certain percentage of the proceeds from that app should flow back to the labels whose catalogs provided the data that fed the system. And of course the record companies also insist on receiving a share of the revenue from the growth area of „functional music“ - sounds and composition-like pieces that are supposed to ensure better sleep, a more balanced personality or deeper concentration and higher productivity. [3]

Remixing is a central element from Universal‘s point of view. The company has just invested millions in cooperations or takeovers in this area. The main focus is on growth opportunities for the back catalogue. A foretaste of what can be expected here was provided by an AI-supported new version of the Brenda Lee Christmas classic “Rockin’ Around The Christmas Tree”. A software first created a voice profile of the singer, who is now 80 years old and has been retired for twenty years, isolated the instrumental tracks and then “sang” a Spanish-language version. Despite its still quite obvious shortcomings, the result is already so good that the time horizon until a marketable version is foreseeable. This means that the rights holders can use unimagined potential to exploit their own legacy even further at minimal cost.

Tacit acceptance

At first glance, it seems reassuring that Universal is actually standing up for the rights of artists on whose shoulders the tech industry has made itself so comfortable for many years - until you think more closely about what exactly this busy activity is supposed to achieve. There is noticeably little talk about what will happen once an AI is able to produce music that is not based on the blunt copying of human models. Suno, for example, already claims that its own models can largely do without human models. [4] If this becomes possible on a broad basis, the labels will be left empty-handed. In addition, one should not expect too much from the income from the contracts and agreements concluded with software companies. For creative people, these fees represent little more than a small additional income, while their actual main job continues to lose importance. To put it bluntly, all these steps indicate only one thing: that the majors have given up and tacitly accepted the triumph of artificial intelligence. It is no longer about protecting producers and songwriters - it is just about participating as profitably as possible in a future in which the labels can get by without them.

Negative connotations

The fact that AI will be a central component of the DAW of the future is hardly up for debate. So far, however, many established manufacturers have shied away from saying this explicitly. As the example of Mikey Shulman shows, a large proportion of their own customers still associate the word with rather negative connotations. The current industry leader Ableton is particularly important. Founder Robert Henke has already openly clarified in an interview that the debate is not about „if“, but rather „how“ and „when“. This makes sense, because even stubborn AI critics readily admit that the possible uses of the new technology are too fascinating to leave unused. For Henke, these new modules will not be a replacement for human creativity, but rather another color in the palette. In what form they will be used depends on the users and their respective goals: „When drum computers came along, there was a big discussion about drummers losing their jobs. And that was partly true. At the same time, there are still people who play drums. We have now realized that a human drummer is one thing and a drum machine is another. The same thing will happen with AI. We will understand that certain things will be taken over [by AI]. Nevertheless, even in 20 or even 50 years, people will still like to connect an oscillator to a filter.“ [5]

In a discussion among Ableton users, the following sentence was said: „We need AI so that we can spend more time being artists and less time being studio engineers.“ That sounds as plausible as it is sensible. Ultimately, however, that is exactly what Shulman, who was so aggressively dissed, actually meant: For most of us, the part that is fun about making music is probably not spending hours refining the hi-hat track in the mix, or choosing the reverb app that sounds best from all the available apps. What is fun is combining sounds and beats in such a way that an emotional, gripping piece is created. In view of the justified criticism of the Suno CEO‘s choice of words, the part that was far more important was lost: that Suno should be a product with which anyone can achieve results quickly, easily and without frustration.

There is no Samaritan complex behind this, of course, but cold calculation - Schulman would rather have a billion amateur customers than a few thousand experienced producers. But one question remains unanswered in these huge plans: if music is easy to learn and can be mastered without practice and a great deal of time investment, if it poses no challenges and is created at the touch of a button - what exactly is supposed to be fun about it? ⁘

> The media group Universal in particular is doing everything it can to reassure its own investors with a broad-based strategy. «

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[3] https://www.musicbusinessworldwide.com/universal-music-enters-into-strategic-partnership-with-ai-music-startup-klay1/
[4] https://towardsdatascience.com/audio-diffusion-generative-musics-secret-sauce-f625d0aca800; [5] https://www.musicradar.com/news/monolake-interview

> »Having other musicians with you means letting go of some control. Ultimately, that's healthy and good for the music.«

Discovered: Mörmaid

Concentration in the energy field!

For most artists, doubt is an issue. For Mörmaid, it's a catalyst. On her debut album „Pearlescent Dark", she extracts emotional resonances from ambient sound art, dubstep, and experimental electronica and then blends them into equally mesmerising and unsettling pop songs. This tendency to fuse and improvise and treat the studio as a laboratory is a result of her past and present in jazz – and the neverending search for fresh impulses. by Tobias Fischer

Beat / ***I was intrigued to find out you have a background in jazz. How is that still influencing your current productions?***
Mörmaid / Jazz has been part of my life since I was little. My dad is a jazz musician, so it was basically always there. I didn't really start properly exploring it myself until my late teens, but then I really went for it. When my music slowly moved towards electronic and pop, I feel like a lot of what I learned from jazz stayed with me.

Beat / ***Like taking an improvisational point of view?***
Mörmaid / Right, when you improvise with others, you get into this really intense listening mode - it's like you forget a bit about yourself and focus on only what's happening in the 'energy field' between the musicians. Even now, when I work alone a lot, that listening mode and attention to detail feels present.

Beat / ***Improvisation still seems rare in electronic music – a genre where often, a "one take" is already considered a "performance."***
Mörmaid / I come from a world where everything is very much "live". In jazz, you mostly record everyone playing together in the same room, do a few full takes, and choose the version that felt best in the end. In pop it's the complete opposite - you record layers upon layers, and you can stitch one lead vocal together from maybe 50 different takes. I feel like I'm somewhere in between. I absolutely love all the creative possibilities you have with recording and music production, layers, overdubs, effect processing etc. But I also sometimes record longer sections that I keep as they are, if I felt like they hit a special nerve.

Beat / ***And then, of course, you mixed the album at Ocean Sound Recording Studio, a place know for its jazz clientele and unique vibes.***
Mörmaid / I was in the smaller studio that is mostly used for mixing and mastering. The listening

environment there is amazing, and I felt like I could really trust what I heard and work with it. The whole place is also incredibly beautiful with the nature and the open ocean. I went for a walk on the nearby beach every day. It was the week before Christmas, so I remember there being lights and decorations up in their offices and that was super nice and vibey, and the people there are lovely. It was an intense week of working almost non stop from early morning to late evening - but I really enjoy getting into something that deeply.

Beat / ***You‘ve also played in many different band constellations.***
Mörmaid / True, I’ve played in a lot of different bands and ensembles. In my 20s, I had a prog rock band for a few years, where I wrote all the music. For my main uni project, me and a drummer named Oskar Johnsen Rydh, who now plays in the amazing band Kalandra, wrote this big piece of music for an extended version of my band, called “Encrypted Reality.” We were 19 musicians in total, I believe - two drummers, three guitarists, strings, percussion etc. I’m still super proud of that piece.

Beat / ***It seems like Mörmaid is turning into more of a collaborative effort on stage as well.***
Mörmaid / Mörmaid started as a solo project and still is. I’ve only recently introduced a live band into the mix. I’m joined by two very talented vocalists and effect processing wizards, Eir Vatn Strøm and Hedda Hammer Myhre. Having other musicians with you means letting go of some control, and I think that’s healthy and ultimately good for the development of the music. It makes everything more organic and it’s great to have actual people on stage to play with and get new impulses every time, instead of hearing the same backing tracks over and over. I also think the community aspect of it is important. Hedda, Eir and I have so much fun together - I rarely laugh as much as I do with them! And I think that chemistry gives a lot to the music as well.

Beat / ***What was recording your debut album „Pearlescent Dark“ like?***
Mörmaid / It was a very long process! I believe, I started working on the oldest song in 2020, and the newest one early in 2024. It’s been a ride with lots of ups and downs. The track list changed every week, and I left quite a few song sketches out in the end - they might turn up later, though! I’m sometimes too nit-picky and perfectionist for my own good - so with me music always takes a lot of time. I don’t think I could be one of those producers that churn out a finished song in one day. I would need time to listen back, make small changes, leave it for a while, come back to it, leave it again and so on.

Beat / ***“House” begins with a sustained tone, turns into a meditative raga-like sonic poem, then explodes in a gentle supernova before ending with bubbling sound effects. How did that come together?***
Mörmaid / That one has been through a journey! Now that I think about it, I believe I made the very first version of that song in 2019. Then it was a bit more complex with weird chords and lots of field recordings and stuff around the melody. During one of the lockdowns, I think maybe in 2021, I was playing around with a Prophet 8 that I owned at the time, and I got the drone-arpeggio-thing you hear in the finished track. The bubbling sound effects at the end are actually a baby’s heartbeat in the womb. The song is contemplating motherhood and the fear of not having what it takes.

Beat / ***What are currently some of the most important pieces of gear and software for you?***
Mörmaid / Ever since I was introduced to Ableton Live by a friend in 2012, my music has become increasingly more electronic. I kept developing my live setup from one midi controller to two and then three. I got rid of the laptop and got a Mac mini so I wouldn’t have a very obvious screen on stage. I started practising opening myself up more to the audience and being less introverted. Now I’m also working with an advanced light show that is programmed to my music. You never know what you’ll get at these small to medium venues, and I feel like my music benefits from a lot of visual energy and movement on stage. So that has been super fun! But I feel that up until this point, my voice has been my most important piece of “gear“.

Beat / ***How so?***
Mörmaid / I love using my voice in all layers of music, not just melody and lyrics. I spent a lot of time experimenting with weird vocal improvisation and “extended techniques” in college, and I still do that a lot. I‘ve always been drawn to music that explores different levels of weirdness. More generally, music that I love has a lot of details - little surprises woven into the production.

Beat / ***I find it interesting that you‘ve not taken to modulars yet.***
Mörmaid / I’ve only really had my hands on a modular synth when I was in uni in London, and I tried it just once, which is a shame! It was so much fun and I think I could really fall in love with it. I think they are great tools, for sure. I use a lot of LFOs when I work on synth design. I have a Prophet 12 that I really love where you can do a lot of that kind of stuff. Maybe a modular synth would be the thing that kicks me into new creative processes.

Beat / ***Late producer SOPHIE, whom you‘ve mentioned as an influence said: “You have the possibility with electronic music to generate any texture, and any sound. So why would any musician want to limit themselves?***
Mörmaid / That definitely resonates with me - I remember watching that interview on YouTube, and it felt like a little bit of a revelation. I love the fact that with electronic music, or music production, you can go anywhere you’d like, and you’re not limited by things like instrumentation. These days, anything is possible, really, which is amazing.

In her productions, Mörmaid uses spontaneity alongside a meticulous search for perfection.

Beat / ***That said, many artists I‘ve spoken to have described limitations as freeing.***
Mörmaid / I do think that we all limit ourselves sometimes, no matter what tools we use. We all have our barriers and doubts that we deal with as creatives. I certainly do. Sometimes, limitation is a good creative tool, too. If you sit down to create with all possibilities open, it might be hard to get something out at all. I like to create little tasks for myself, like “today I’m going to start with chords, since I started with melody last time” or “I’m gonna make a drum beat today that doesn’t include any actual drum sounds” or something like that. That stuff helps to get the creative juices flowing.

Beat / ***What would you like to improve about your approach?***
Mörmaid / Everything! (laughs) I feel like I need to find something new that creates a spark, where I’m moving my sound forward. Maybe it means stripping it all back, maybe it means exploring elements from other genres than pop and electronic music. I need some new impulses. I know they’re out there though, I just need to look for them!

mormaid.com

DISKOGRAPHIE:

// Pearlescent Dark / 2024

Portrait: Jordan Rudess (Dream Theater)

Virtuoso with a love for technology

Since 1985, the name Dream Theater has been synonymous with one of the most sophisticated bands that Rock Music has to offer. Inspired by Progressive Rock, Metal, but also Avant-garde, Jazz and Classical Music, the five trained musicians from New York often play so delicately that it seems as if they came from another universe. So we took the opportunity to get an interview with keyboardist Jordan Rudess in light of the new album „Parasomnia“. He is not only considered a proven virtuoso on his instrument, but also has a great interest in music technology, software and AI, which of course also makes him interesting for Beat. **Interview: Sascha Blach**

> » Personally, I approach music with the mindset of a classical composer. «

Beat / Let‘s talk about the new Dream Theater album „Parasomnia“. What‘s the mood like in the band at the moment, now that your original drummer Mike Portnoy is back and you just finished your 40th anniversary tour?

Jordan / We‘re all very excited and it‘s going great. When Mike came back to record the new album, it felt like we were coming home. There‘s an incredible energy in the band and apart from the feeling, it also brought a lot of inspiration. Mike contributed so much, not only in terms of his drumming, but also to the creative process of the album and of course the tour. For example, he put together the setlists, a task we immediately assigned back to him. Overall, the energy in the band is fantastic and it‘s great to have him back.

Beat / The last album you did together was „Black Clouds & Silver Linings“ (2009). Did it feel like you were picking up where you left off or did it have a new quality?

Jordan / In some ways, it felt like we never took a break, even though so many years have passed. It‘s amazing how time works. Sometimes the perspective of the years that have passed can be so different than you would expect. When Mike got back on and we started working, it was literally almost like we hadn‘t missed a beat. So in some ways, it was just a continuation of where we left off.

Beat / Both your ex-drummer Mike Mangini and Mike Portnoy are considered to be the best drummers in the world. What is the difference for you as a fellow musician playing with the two of them?

Jordan / I‘ve been lucky enough to play with a lot of great musicians in my life and I‘ve learned something from each of them. Drumming is such a central part of a rock band. The musical feel changes significantly depending on who‘s on the drums. Mangini is an incredible drummer - one of the best in the world - and so is Mike, but the feeling is different. It‘s hard to describe. Mike Portnoy started the band with the other guys many years ago, and it feels very natural to see him playing with the band. It‘s just unmistakable.

Beat / I felt like the new album came together relatively quickly after Mike returned. Would you sign off on that?

Jordan / I wouldn‘t say it was fast. Compared to some other albums, we really took our time. We have our own studio in New York and we weren‘t in a rush. We wanted to make sure everything was exactly how we wanted it to be. It was certainly efficient, but not rushed. It was more like we thought, let‘s take our time and do it right.

Beat / Were there any specific goals for the sound of the album?

Jordan / We all felt like we wanted to reconnect with what you could call the core sound of this lineup. There was no need to reinvent the wheel. It was more about rediscovering our personal and musical connection and making music that really spoke to us. We wanted to make something that we all thought was really cool and could get behind with energy. It‘s interesting when you bring groups of musicians together, they somehow always find common ground.

Beat / How have you been working together this time? Do you all collect ideas and then come into a room to work them out together, or do you work more remotely on the computer?

Jordan / Dream Theater work in a way where we all stand in a room with our instruments. Everything is set up and plugged in. Someone throws an idea into the room and we jam to it to see where it goes. If we like something, we develop it further. We always have a lot of ideas - riffs, melodies, thoughts - and we‘re pretty organized when it comes to keeping track of them. For example, we use a whiteboard to write down ideas, even if we don‘t know where they fit yet. And as we work, at some point we might say, hey, you know what? That idea we had before would be perfect here. So it's about us working together to create these songs together.

Beat / ***There's a nearly 20-minute song on the album called „The Shadow Man Incident". How do you create such a huge song?***
Jordan / We've never stuck to typical song formats. We like structure, but we prefer to do things our way. Personally, I approach music with the mindset of a classical composer. You think about different things, like the development of motifs and the way songs are constructed, or different bridges. It doesn't have to be short form. Longer pieces are often easier to write because you can explore and manipulate the material in so many ways. What can you do with a musical line? Can you take a melody and suddenly put it in the bass and then see what other types of harmonies you can layer on top of it? Or you can take a melodic phrase and then take part of the motif and rearrange the rhythmic factors and just have fun with the musical elements. Those are things we've always done and we enjoy.

Beat / ***Yes, there's always a lot to explore. But you don't plan to write a 20-minute song beforehand, do you?***
Jordan / We've had moments where we've said to ourselves, let's make a really epic song. Or sometimes we start something and realize halfway through that it could become an epic. When that happens, we give ourselves the freedom to live it out. „The Shadow Man Incident" was one of those moments. We said to ourselves, let's keep going, let's make it happen - it's going to be a fantastic long track.

Beat / ***What instruments did you use to record the new album?***
Jordan / My main electronic keyboard was the Korg Kronos. Yamaha also provided me with a fantastic C7 grand piano, which we had in the studio and used extensively throughout the recording process. It was incredibly inspiring to have a real acoustic piano in the room and that's why there are a significant amount of piano passages on the album. Recording a Dream Theater album is a completely different process to playing live. On stage I have relied on doing everything on the Korg Kronos for the past few years. I sample elements when necessary or program parts. In the studio I take a different approach. As a ‚music technologist' I work extensively with various software. Although I am a keyboard player, I am also responsible for orchestral and choral elements, so I rely heavily on tools such as Spitfire's BBC Symphonic Library, EastWest Libraries, 8Dio and Omnisphere. I also work with the Audio Modelling team and really appreciate their impressive technology. For this album I also used a new keyboard called Osmose from Expressive E and tried out Yamaha's Montage. In the studio I love having access to a wide range of sounds - it expands the creative possibilities enormously.

Beat / ***Would you say you are a tech nerd who is constantly trying out new devices?***
Jordan / Absolutely. I love technology and am deeply involved in the world of music technology. For example, last year I was a guest artist at MIT's Media Lab in Boston and worked on a large interactive AI music project. It's exciting to use modern technology in Dream Theater, but I'm also involved in shaping the direction of how technology advances musical instruments for the future.

Beat / ***That's a very interesting topic, but I'm afraid we don't have time for that now.***
Jordan / Yes, well. Another time.

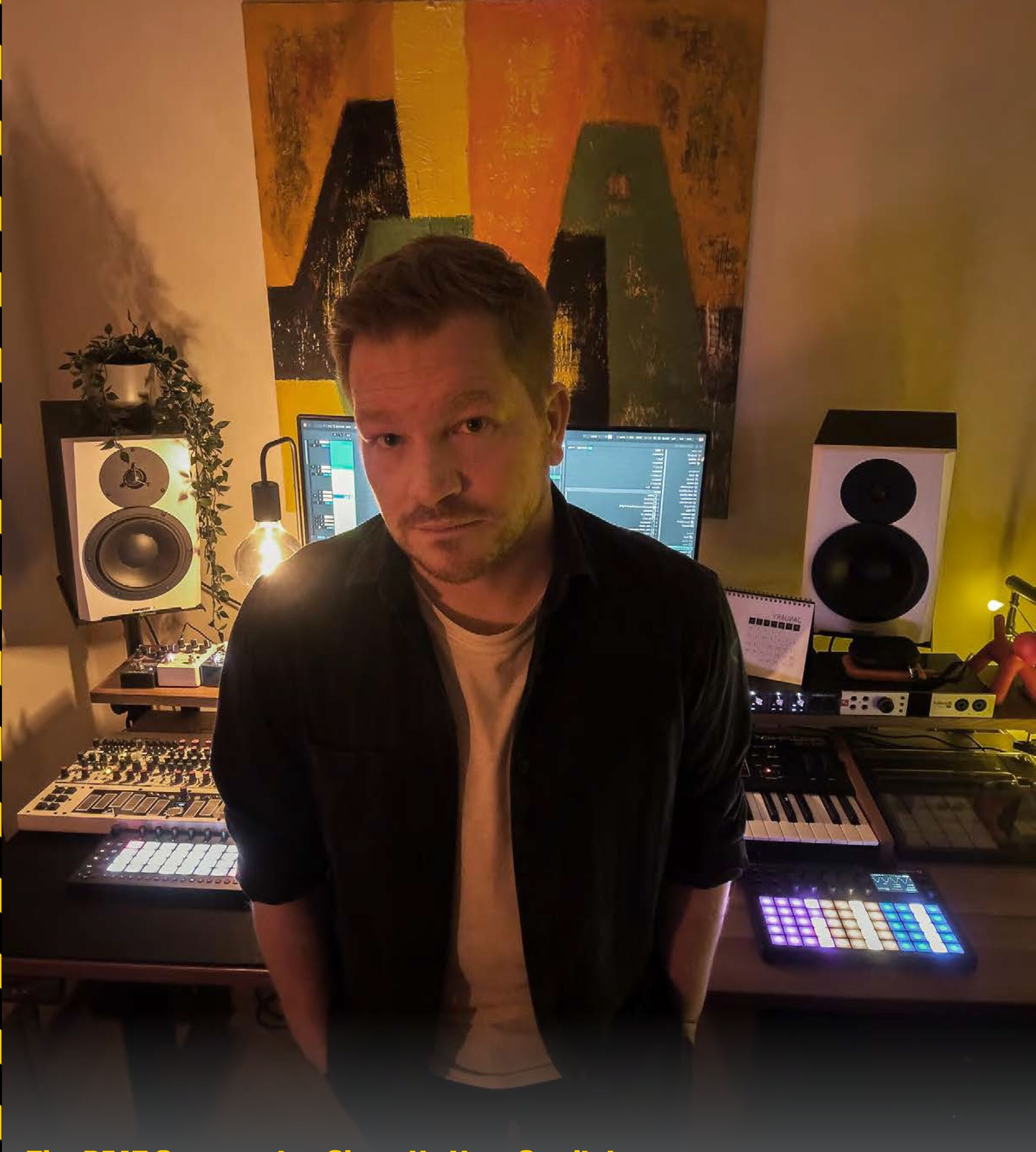
Beat / ***Dream Theater are known for the fast solos, often in unison between guitar and keyboard. How do they come about? Are they more improvised or composed?***
Jordan / They come about in different ways. Sometimes John Petrucci presents a pattern on the guitar. And then I say, oh, that's very cool, let me write down what notes those are and come up with a nice harmony to go with it. Then I literally grab a pen and paper and write something that goes with it, and it ends up being one of those cool unison parts. Sometimes it goes back and forth and we develop the ideas together. So it becomes this typical John and Jordan thing, these interesting, virtuoso solos. So there are different ways of doing it, depending on what it is.

Beat / ***Do you have to practice these complicated solos a lot or do you find them easy to play?***
Jordan / It's not always easy! Sometimes John comes up with an interesting pattern and I write a complex harmony to go with it. Often I only realise afterwards that I still have to figure out how to play it. I sometimes have to twist my fingers quite a bit to do that (laughs). But the main priority is always to do something interesting and cool and only then is it about learning to play it. We struggle a lot sometimes because it's not always easy. But that's what we love, practicing our instruments, so we take the time to figure out how to play these parts and work on them until they're right.

Beat / ***How many hours a day do you usually play keyboard or piano?***
Jordan / It depends because we're usually very busy. For example, right now we're on tour. If I can warm up before a show, that's great, but the majority of the playing happens during the show, which lasts almost three hours. In the studio, on the other hand, we play for hours every day because that's what we're there for. At home, it varies, but it's less regimented than when I was younger and practiced classical piano for many hours every day. It's difficult for a professional musician to always have the same schedule.

Beat / ***The album deals with topics like insomnia, sleepwalking and nightmares. Are the lyrics based on personal experiences?***
Jordan / The idea came from John Petrucci. It wasn't based on personal experiences, but more on a fascination with the subject. It fits perfectly with the name Dream Theater and gave us a lot of inspiration for the lyrics and music. When he presented the subject to the rest of us, we thought wow, this is great, and those who write lyrics were excited to get into it. Also for me as someone who only works in sound, it was great because it gives me a lot of inspiration for cool sounds. ⁘

www.dreamtheater.net



The BEAT Community: Show Us Your Studio!

Matthew S

It‘s always refreshing to see how others set up and work in their studios. After our call on Facebook, we were overwhelmed with responses and that‘s a good thing. So, it quickly became clear that we would turn it into a series to inspire and share with everyone. This month we’re with Matthew S. **by Marco Scherer**

Beat / Let us know why you have set up and furnished your studio the way you have?

Matthew / My studio has been designed and furnished with great attention to detail to reflect my artistic approach and musical vision. As a producer and artist, it is essential for me to have a space that not only stimulates creativity but also ensures a smooth workflow, allowing me to freely explore new sounds and ideas. Every instrument in my studio has been carefully selected with the goal of offering the best in terms of sound quality, versatility, and integration capabilities.

At the heart of my setup is the Prophet Rev2, the beating heart of my studio. This synthesizer has been with me for years, and I use it both as a standalone instrument and as a controller, thanks to its powerful sound and endless modulation possibilities. To me, the Rev2 is a natural extension of my creativity, an instrument that allows me to shape my ideas in an immediate and intuitive way.

Furthermore I have chosen instruments like Maschine Plus and Ableton Push for their ability to transform ideas into tracks quickly and efficiently. To enrich my sound, I have incorporated unique synthesizers into my setup, such as the Solar42F by Elta Music, the SER-2020 by AnalogFX, various models from Modal Electronics, and the latest Polyend Synth. Each synthesizer carries its own sonic identity, which I use to create unique atmospheres and textures in my productions. This tonal variety allows me to explore a wide range of sounds, from vintage to modern, constantly finding new inspiration.

The furniture and physical organization of the space also play a crucial role. My studio has been designed to ensure comfort, accessibility, and a direct connection with the instruments. The environment is crafted to be both functional and inspiring, so that every creative session is a smooth and enjoyable experience. Lighting, acoustics, and instrument arrangement have been carefully planned to strike a balance between practicality and atmosphere, fostering concentration and free artistic expression.

Beat / What tips can you give other readers, what traps should they not fall into?

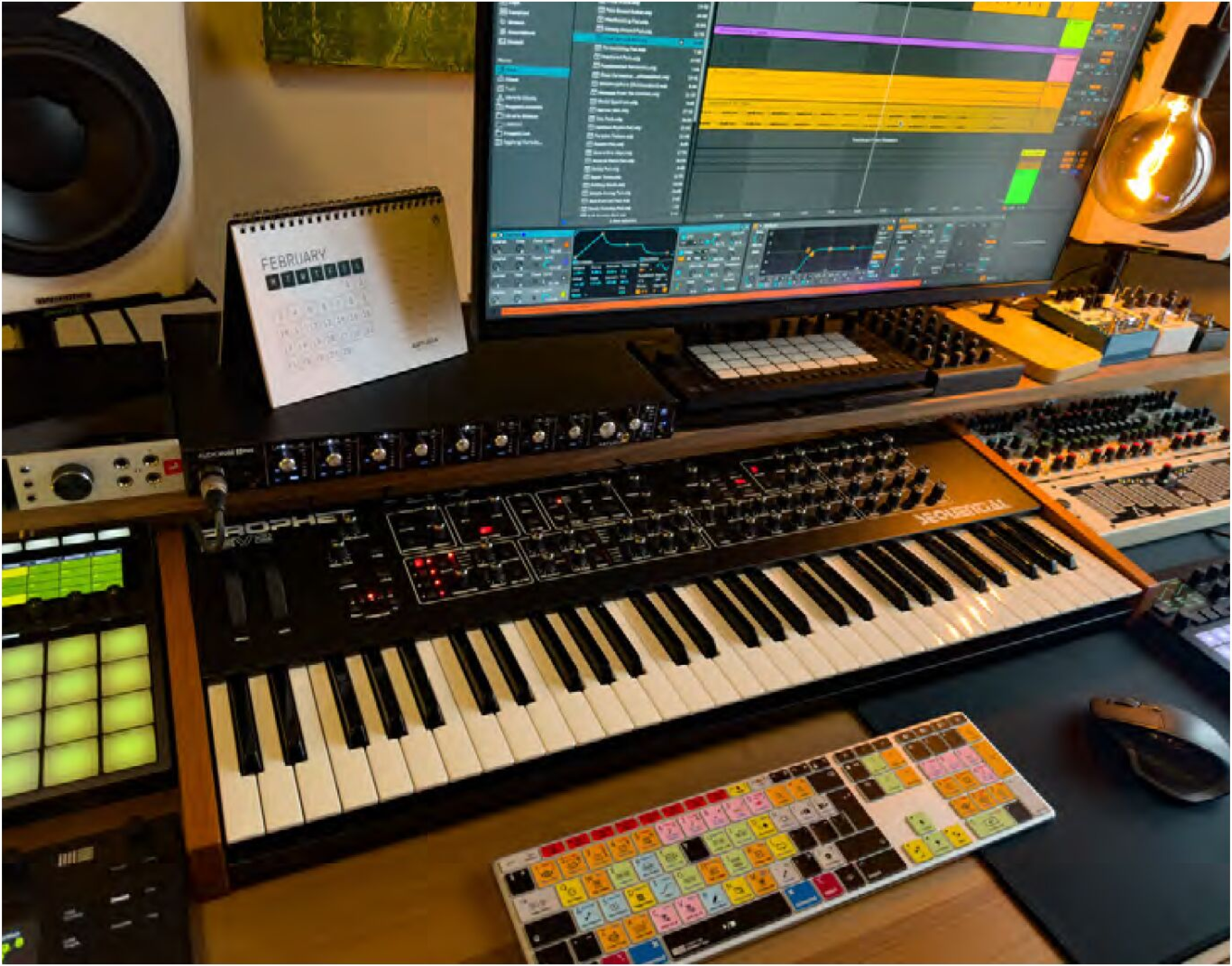
Matthew / When it comes to building a studio or choosing equipment, I believe the most important thing is to truly understand what you need for your artistic journey. It's not about accumulating gear or following the latest trends but about creating a space that reflects your style, your needs, and your way of working.

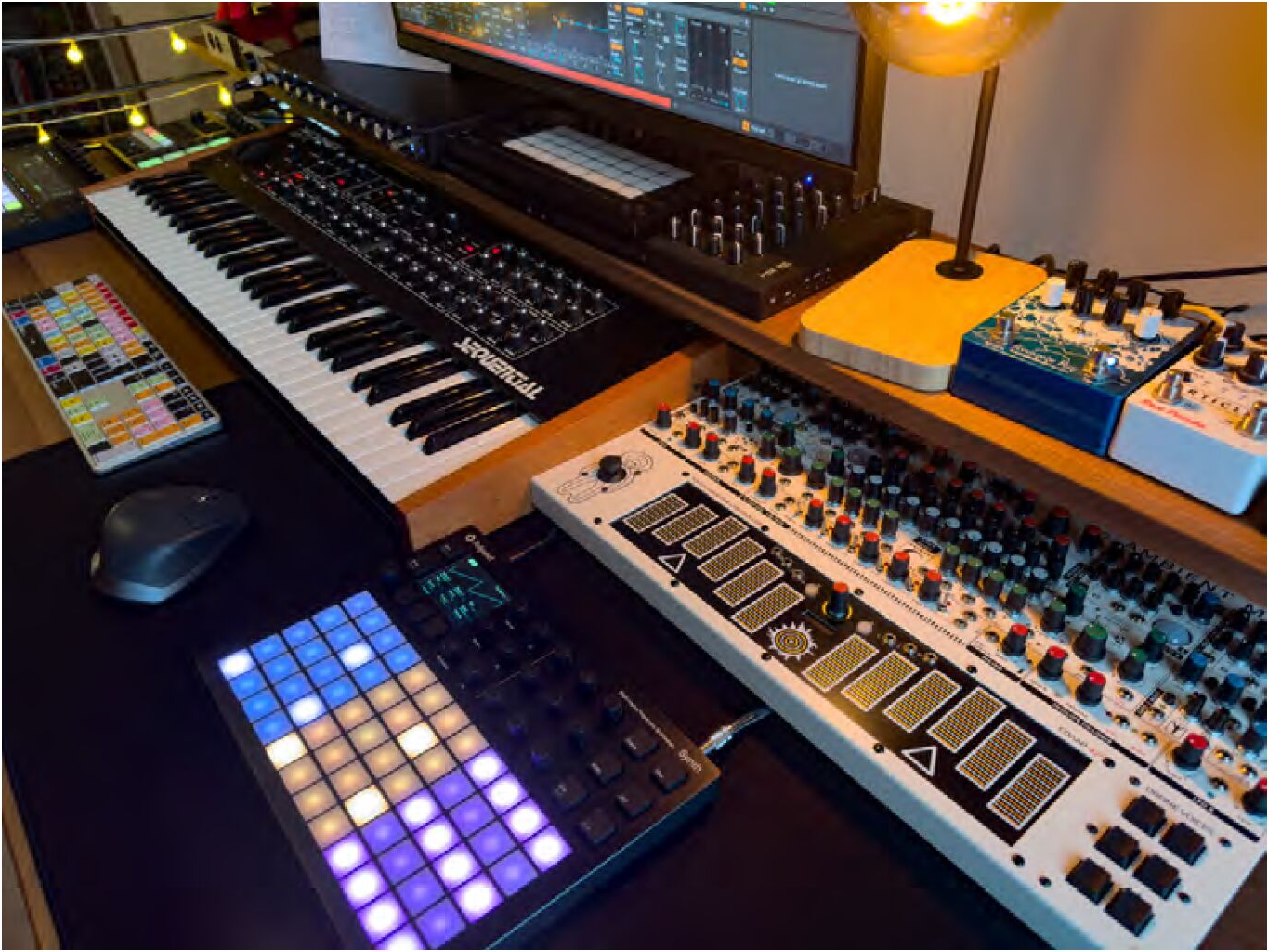
Another fundamental aspect is creating a well-organized space. My studio is designed to have everything within reach so I can immerse myself in music without interruptions. Never underestimate the importance of an ergonomic and functional environment—a messy or impractical setup can seriously hinder inspiration.

That said, there are also pitfalls to avoid. The first is not being overly influenced by trends. It's easy to be tempted by the latest gadget everyone seems to be using, but often, it's not what you really need. Whenever I consider a new purchase, I always ask myself: "Will this tool help me achieve my goals? Does it fit into my setup?" If the answer is no, I let it go.

Another trap is neglecting the quality of listening. You can have the best instruments in the world, but without proper monitors or headphones, you won't be able to perceive the true potential of your music. The organization of your setup is also crucial—too much equipment or a cluttered environment can become more of an obstacle than a help.

Finally, I want to emphasize the importance of experimentation. Sometimes, we are too rigid in how we use our tools when instead, we should let go and try new things. Some of the best ideas come from simply playing around with equipment, without too many rules.





***Beat /* Do you produce as a hobby or do you do it for a living?**

Matthew / I make music for a living, and my entire creative journey revolves around this. Every project, every track, and every performance represents a piece of my identity as an artist.

I'‘ve been fortunate enough to turn my passion into a career that allows me to express who I am, explore new sounds, and share them with an audience. This means that my production work is not just about experimentation or personal enjoyment but is deeply tied to a constant commitment to quality, innovation, and the creation of something meaningful.

***Beat /* How did you acquire the skills for the studio and your productions?**

Matthew / I started with a self-taught approach, learning to familiarize myself with synthesizers, drum machines, and music production software (Ableton). I have always considered experimentation as one of the main ways to acquire new skills: every recording session and every production has been an opportunity to learn and improve.

Another crucial aspect of my growth has been constant updating. Music technology is constantly evolving, and keeping up with the latest developments is essential. Collaborations with various brands as an endorser have also given me access to advanced tools and resources, enriching my arsenal and enabling me to refine my skills even further.

***Beat /* Which part of your studio could you never do without?**

Matthew / A tool I could never do without in my studio is definitely Ableton Push. This controller is essential to my workflow, as it allows me to interact directly and intuitively with Ableton Live. Thanks to its interface and touch-sensitive pads, I can create beats, play melodies, and edit tracks in real time without constantly relying on a mouse or keyboard.

***Beat /* Where and how do you find out about equipment when it comes to purchases for the studio?**

Matthew / When it comes to choosing new equipment for my studio, I rely on various sources to ensure I make targeted purchases that align with my artistic approach. I closely follow the latest industry developments through specialized fairs and events, such as the NAMM Show or Superbooth, where I can test new instruments and interact directly with manufacturers.

Beyond events, collaborating with different brands as an endorser gives me the opportunity to preview new technologies and understand how to best integrate them into my setup. Direct contact with companies and other artists is crucial for thoroughly assessing the potential of a synthesizer or controller before incorporating it into my workflow. I also stay updated through professional reviews, online communities, and dedicated forums, where discussions with other producers help evaluate the real-world value of a piece of equipment in a production context. Ultimately, though, my final decision always comes down to one essential criterion: the instrument must inspire my creativity and seamlessly fit into my way of making music.

***Beat /* What special features did you have to contend with when setting up your studio?**

Matthew / When I set up my studio, I had to face several challenges to create a space that was not only technically advanced but also functional and inspiring. One of the main aspects I focused on was the integration between hardware and software, ensuring that my analog tools interacted seamlessly with my digital setup, guaranteeing a smooth workflow both in production and live performance.

Additionally, I paid special attention to the room's acoustics, working on treatment that would provide the most accurate listening experience possible—an essential factor for precise mixing and production. This was a crucial aspect because, without proper acoustics, even the best equipment might not perform at its full potential.

***Beat /* How did you treat the room acoustically, where did you encounter difficulties?**

Matthew / When I acoustically treated my studio, I primarily focused on the walls, avoiding the use of traditional bass traps and acoustic panels. Instead, I opted for more natural and creative solutions, such as using bookshelves filled with books, paintings, and heavy curtains to manage high and mid-frequency reflections. This approach allowed me to reduce unwanted reflections while maintaining a natural and lively sound.

The acoustic treatment of my studio was a process of experimentation and adaptation, based on practical and creative solutions. By using elements

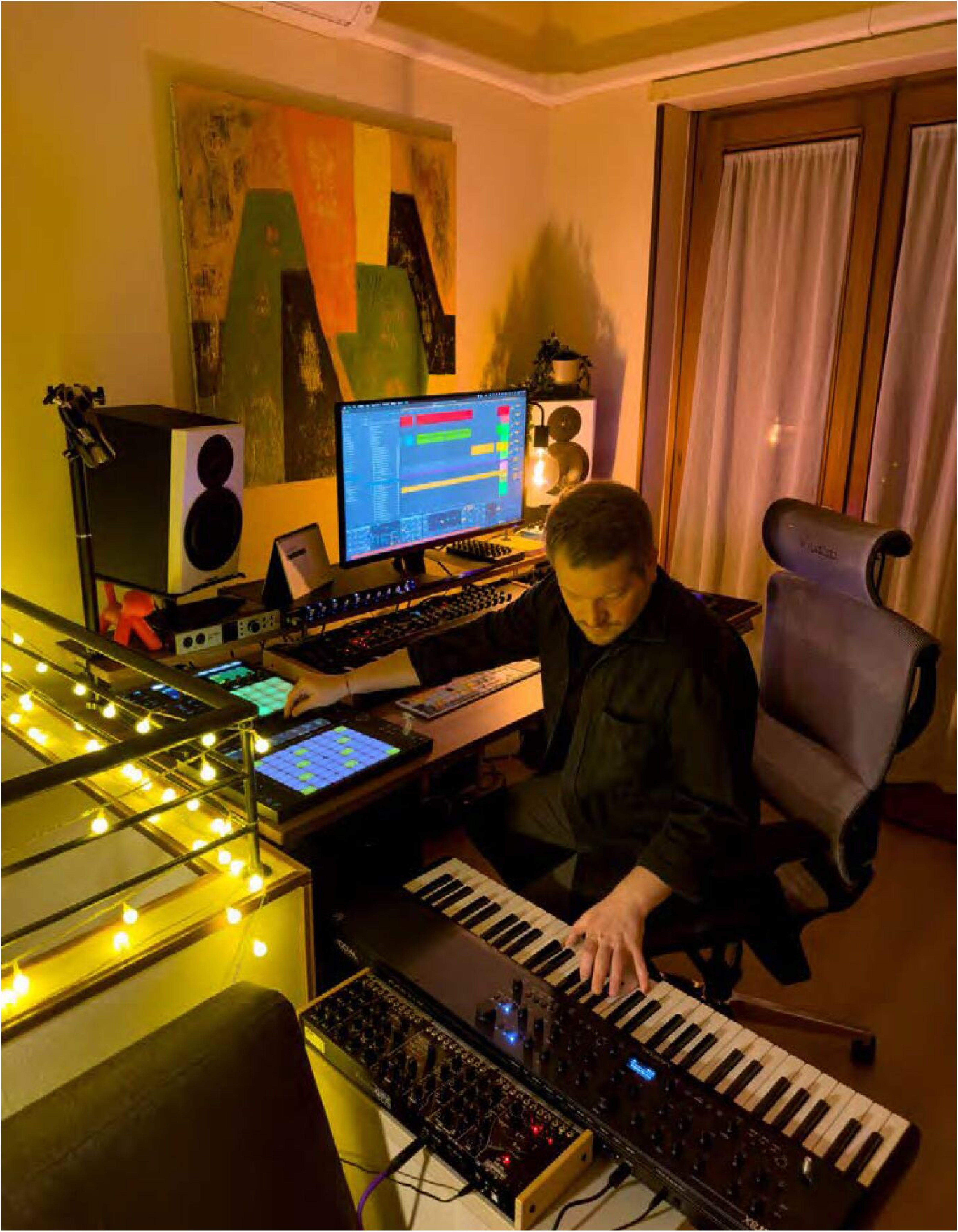
like bookshelves, paintings, and curtains, I was able to create an acoustically balanced space, ideal for both production and mixing. This approach allowed me to achieve a comfortable and stimulating environment that meets my artistic and technical needs without compromising the naturalness of the sound.

Beat / What kind of music (or style) do you produce the most?
Matthew / My music production has always been a journey through experimentation, an ever-evolving path that has led me to explore a wide range of genres and techniques. Initially, I approached electronic music with a curious mindset, ranging from IDM to ambient, and incorporating more industrial sounds and complex rhythms. Each phase has been an opportunity to learn, test new tools, and refine my style, always with the goal of creating something unique and personal.

Now, my focus has solidified around a sound that blends IDM, experimental elements, and ambient influences. This genre represents, for me, the meeting point between my passion for hypnotic atmospheres and my attraction to pulsating, deep grooves. I like to think of my tracks as a sensory experience, where the listener is transported into richly detailed and nuanced sonic worlds.

Beat / Do you have any upcoming releases?
Matthew / Yes, I‘m working on a new single, which has had a truly unique creation process. The track was born in Berlin, a city that has always inspired me with its energy and music scene, and then I finalized it in Italy, where I was able to refine every detail in my studio.

At the moment, I haven‘t decided on a release date yet, because I want to take the necessary time to perfect it and ensure it fully expresses my sonic vision. However, I can say that it will be a track that encapsulates immersive atmospheres and refined electronic sounds, in line with my artistic style. Stay tuned for updates!



Beat / What is still missing in your studio?
Matthew / In my studio, I have built a very comprehensive setup, but there is always room for new ideas and tools that can expand my sound design. At the moment, what I feel is missing is a modular system, which would allow me to explore sound synthesis in an even more experimental and personalized way.

I would like to integrate Eurorack modules to have a more dynamic and interactive approach to sound creation, pushing my timbral research even further. Additionally, I am considering adding some analog outboard units for sound processing, such as hardware compressors and reverbs, which could add even more character and depth to my productions.

Beat / This Beat issue also comes with a sound pack of yours. Please tell us what‘s inside and what inspired you to create it?
Matthew / For this sound pack, I wanted to create a collection of unique and carefully crafted sounds that represent my approach to music production and my electronic style. Inside, you’ll find deep basslines, atmospheric textures, and hypnotic sequences, all designed using my hardware setup. The inspiration came from my studio workflow and the desire to offer versatile sounds that can be used in both techno and electronic productions, as well as in more experimental contexts. I focused heavily on sound sculpting, using advanced sound design techniques, modulation, and creative processing to ensure original and immediately usable timbres in productions.

Each sound was designed to be organic and dynamic, perfect for those seeking sonic elements that can add character to their tracks. I hope this sound pack can inspire other artists and producers, just as the tools I use every day inspire me.

Beat / Where can we find out more about you and your sound?
Matthew / To learn more about me and my sound, you can visit my website, www.matthewess.com, where you‘ll find detailed information about my career, collaborations, and music productions. Additionally, you can follow me on major social media and music platforms like Spotify, SoundCloud, and Instagram, where I regularly share new tracks, performances, and updates on my work. My personal website and social pages are the best places to stay updated on future projects, new releases, and to connect directly with my musical world. ⁘

www.matthewess.com

More info:
Info at: ikmultimedia.com
License & password: www.serialcenter.de

IK Multimedia Dyna-Mu

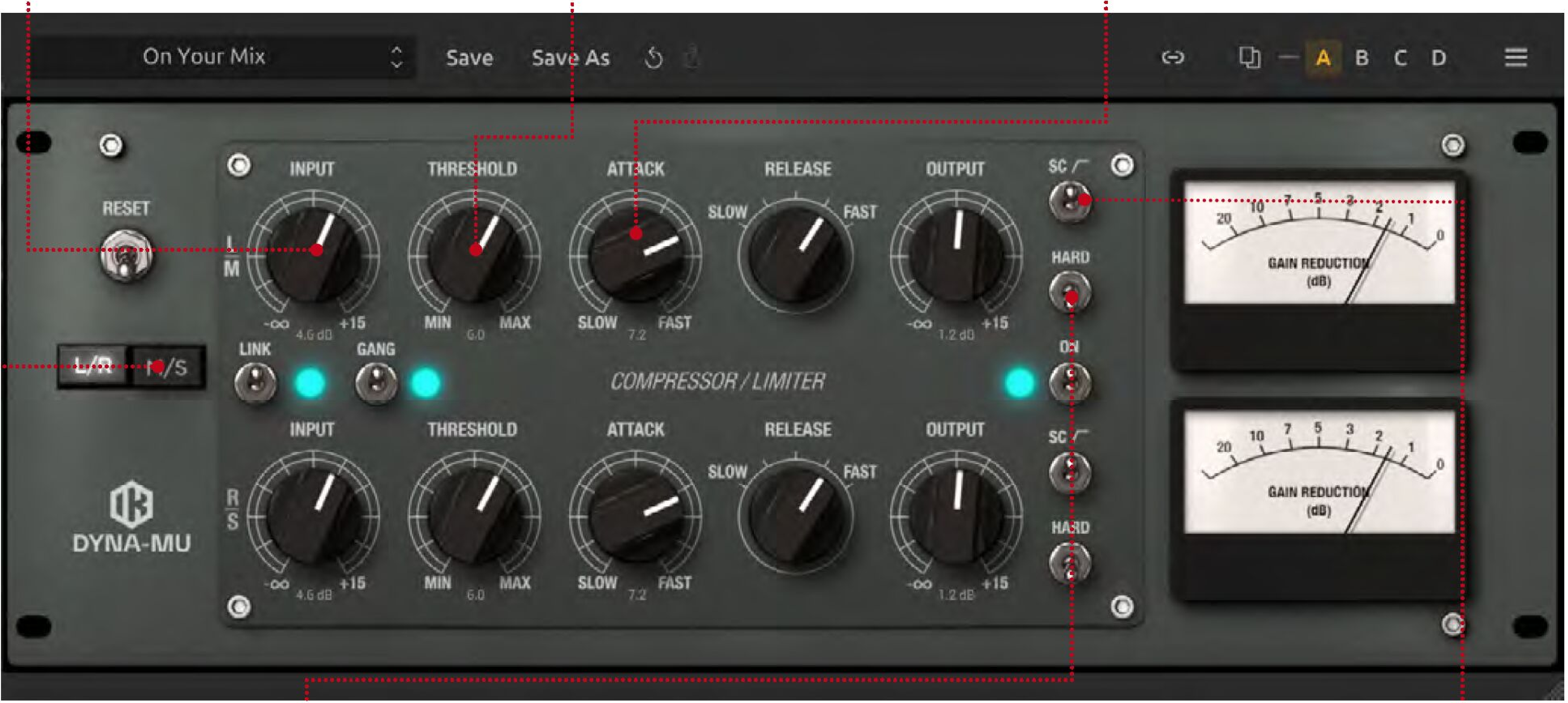
Manley tube power for your DAW

This month you can look forward to a very special software highlight: a faithful emulation of the legendary Manley Vari-Mu Compressor/Limiter! IK Multimedia Dyna-Mu provides warm, musical compression and is particularly suitable for gluing together signals on Bus Tracks. This high-end tube dynamics processor can also enhance instruments and vocals with a professional and warm vintage sound! by Mario Schumacher

Sound Shaping and Level Control
With the **Input** Control, you control the Input Gain and, therefore, **how hot the tube stage is started up**. A higher value means more saturation and warmth. Output balances the volume after compression so that the mix remains powerful without overdriving.

Control Over the Dynamics
The **Threshold** value determines when the compression kicks in. Select a low value for dense compression, for example, of dynamic basslines. Higher values are recommended for Bus Compression or Mastering in order to gently round off only the loudest peaks.

Time Constants
The **Attack** Control determines how quickly transients are intercepted. A slow setting preserves the punch, while a fast value compresses percussive elements. **Release**, on the other hand, determines how long the compression lasts.



Sidechain
The **Sidechain** filter removes low frequencies below 100 Hz from the compression control. As a result, the compression reacts less strongly to bass drums and basses and, therefore, sounds more transparent.

M/S Processing
Like many other signal processors for T-RackS, Dyna-Mu also offers a M/S Mode in which you can process the Mid and Side signals individually - perfect for Mastering or for adjusting the stereo width.

Harder Compression
Dyna-Mu offers a Hard Mode for powerful compression of individual tracks such as Drums, Bass, Guitars or Vocals. Otherwise, the plug-in works with a softer compression ratio, ideal for processing Bus Groups.

REGISTRATION & INSTALLATION

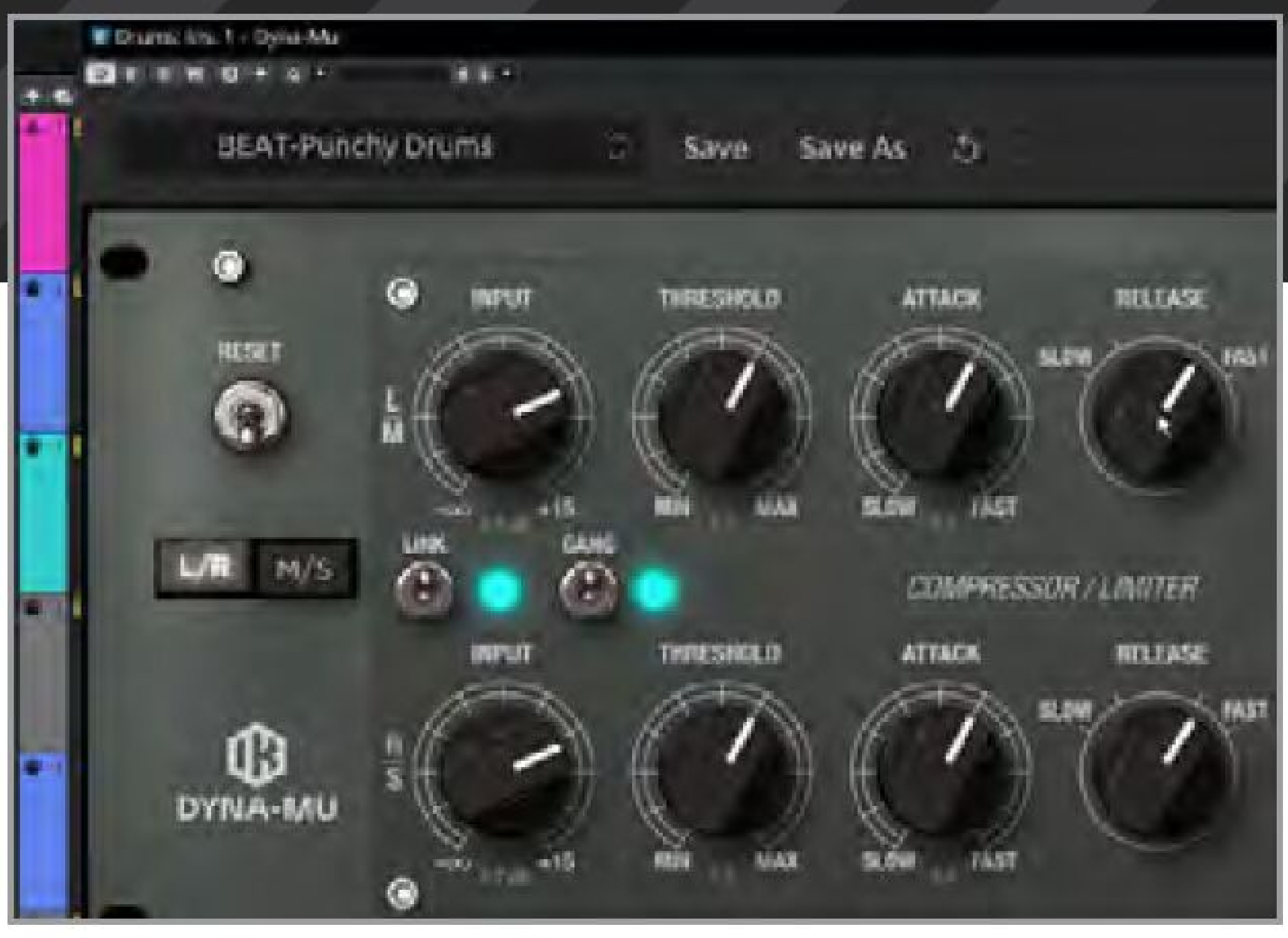
T-RackS Dyna-Mu is registered via www.serialcenter.de. You will receive a serial number that you can register in the IK Product Manager: www.ikmultimedia.com/products/productmanager. You can then download and install the plug-in under the T-RackS entry.

[1] www.overloud.com

MODO DRUM
MODO DRUM

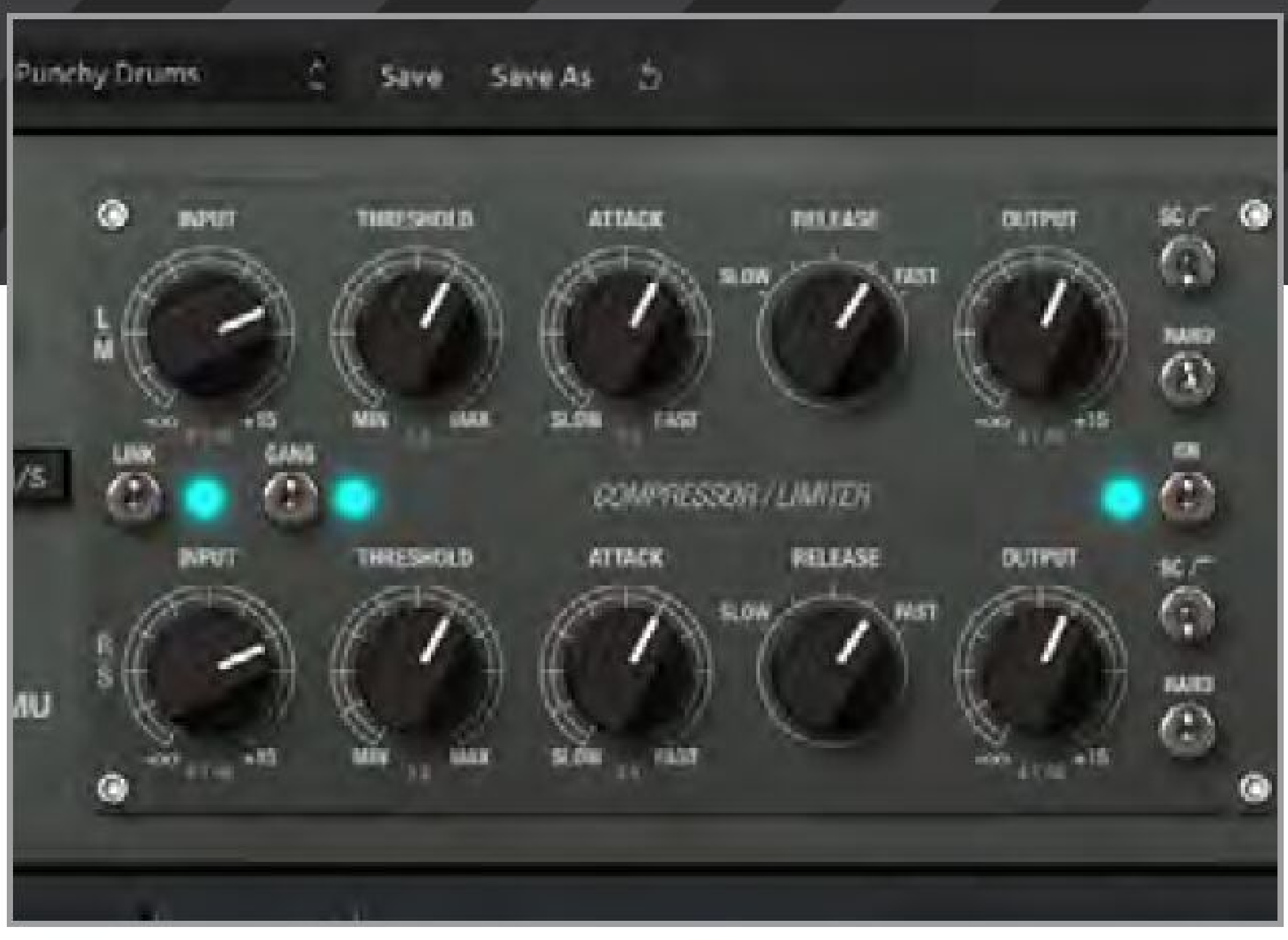
1 More power for drums

Want a little more power for your drum recording? No problem! Load Dyna-Mu as an Insert. Make sure that **Gang** and **Link** are activated. **Gang** ensures that we can set both rows of Dyna-Mu at the same time. With **Link**, on the other hand, you determine whether the sidechain detection takes place together or independently for both channels.


BEAT-Punchy Drums
Save
Save As
RESET
INPUT
THRESHOLD
ATTACK
RELEASE
SLOW
FAST
MIN
MAX
LINK
GANG
L/R
M/S
COMPRESSOR / LIMITER
DYNA-MU

2 Drum compression

Turn up the **Input** for a richer sound - rock drums in particular benefit from a little saturation. Start with **Threshold** and **Attack** values of **6.0**. Set the **Release** to a short value for rhythmic dynamics or a long value for a soft decay. With our drums, the second-fastest **Release** value sounds good.

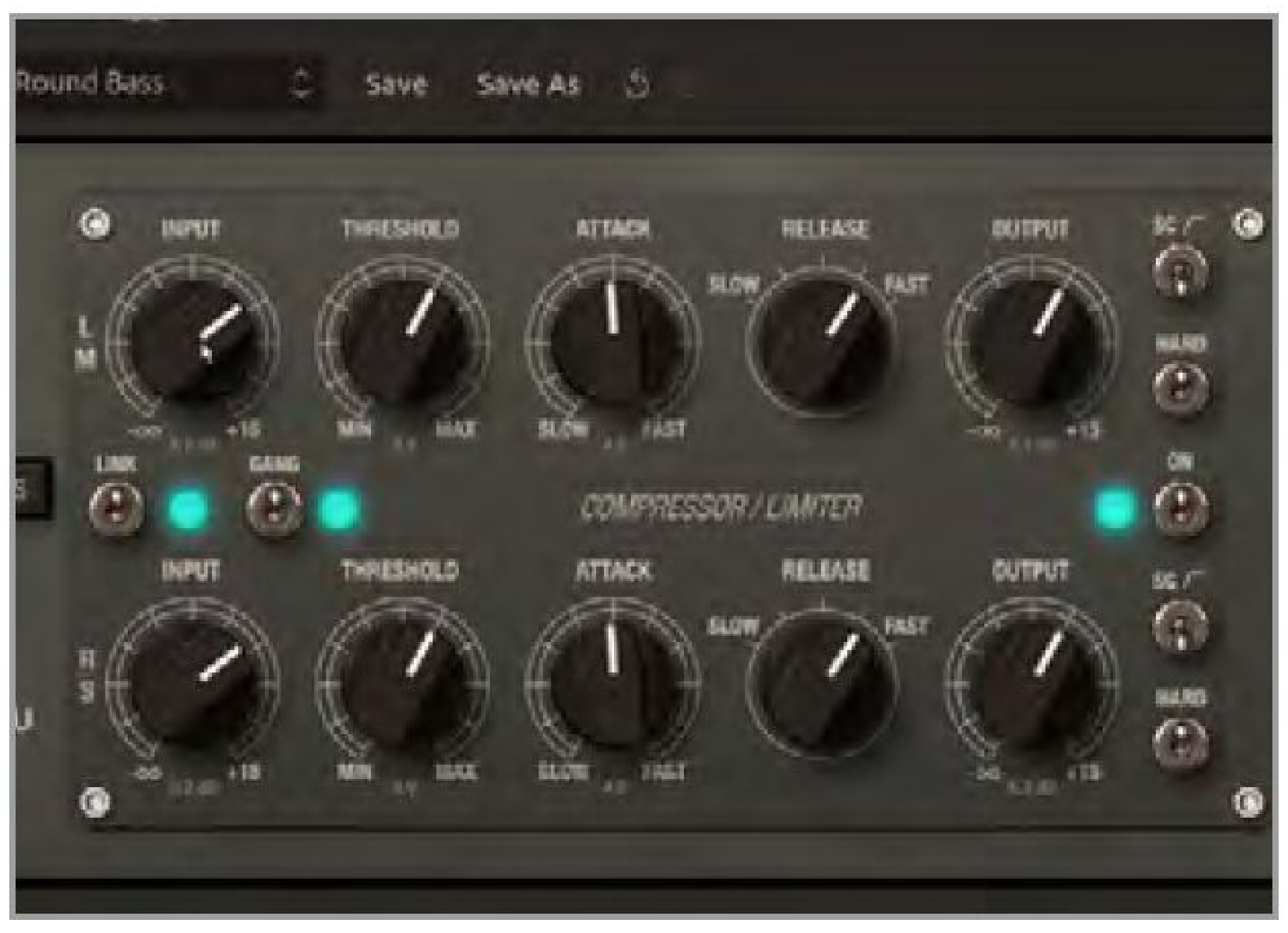

Punchy Drums
Save
Save As
INPUT
THRESHOLD
ATTACK
RELEASE
OUTPUT
LINK
GANG
COMPRESSOR / LIMITER
HARD
ON

3 More punch?

Turn up the **Output** accordingly to increase the loudness of the drums. Now try out how the **Hard** mode affects the sound. If this is activated, the compressor works with a medium ratio of **4:1**, which is particularly suitable if you want to give individual tracks or groups more punch.

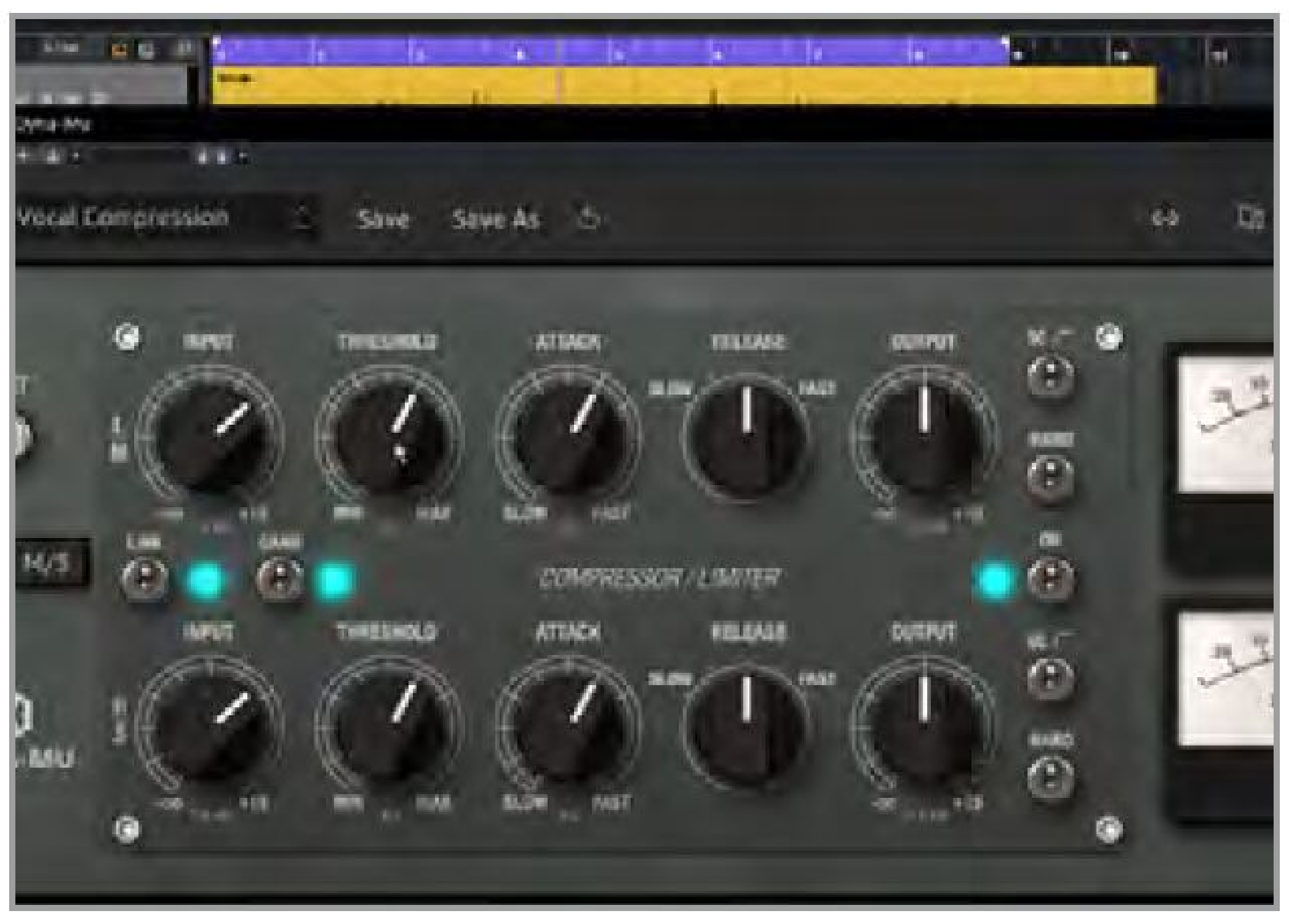
4 Pump up E-Basses

Another specialty of Dyna-Mu is to give Electric Basses more pressure and a concise Attack. Load the plug-in onto your Bass Track and set **Threshold** to **5.9** and **Attack** to **4.9**. The second-fastest **Release** setting is a good starting value here. **Hard** Mode gives dynamic basslines a defined, controlled sound.


Round Bass
Save
Save As
INPUT
THRESHOLD
ATTACK
RELEASE
OUTPUT
LINK
GANG
COMPRESSOR / LIMITER
HARD
ON

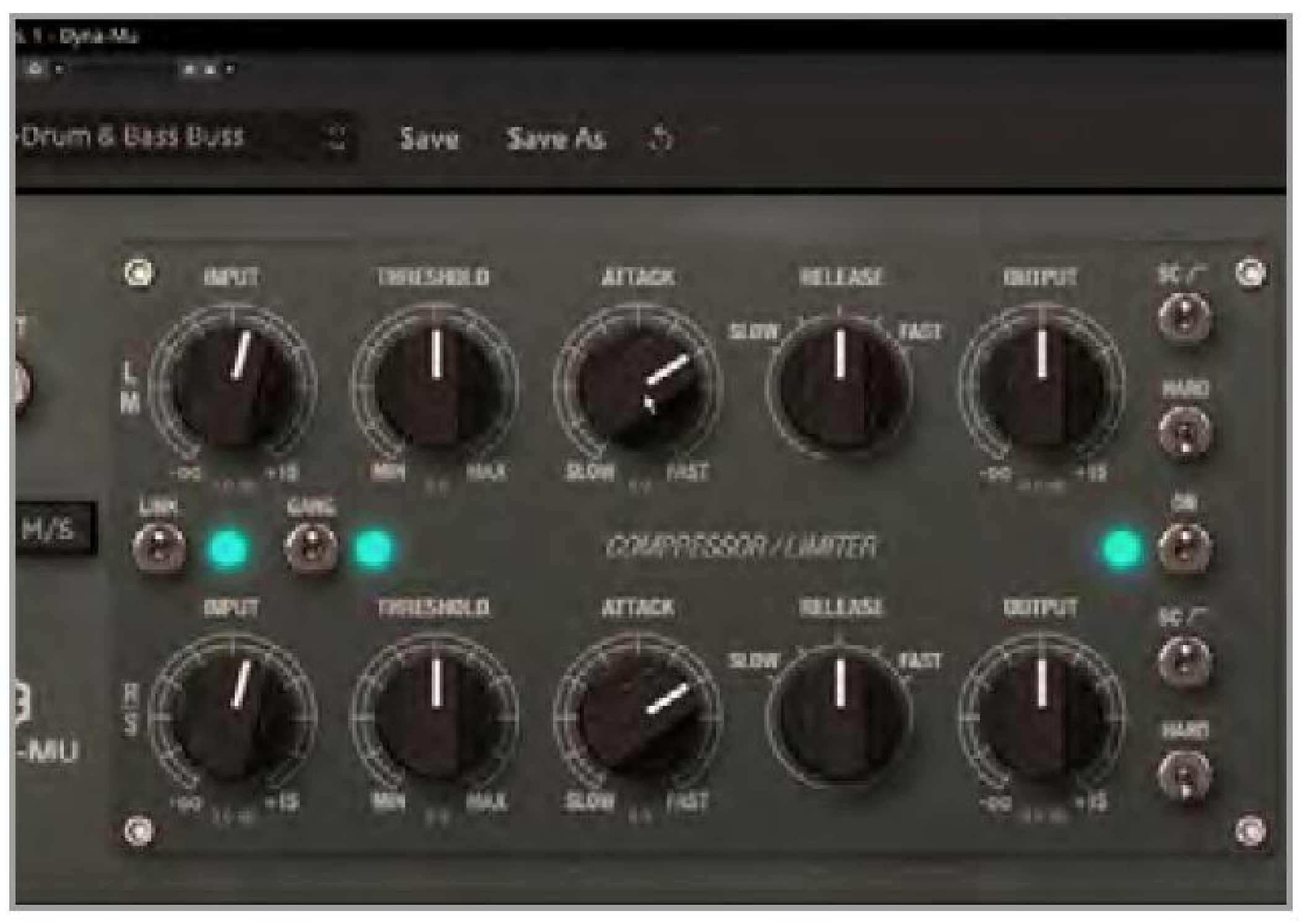
5 Sound coloration

Want more warmth? Simply turn up the input amplification (**Input**). This will give your bass sound a nice harmonic coloration. If it gets too loud, you can compensate for this with the **Output** control. Do you have a cool vocal recording that sounds far too dynamic? Dyna-Mu can also help with this task.


Vocal Compression
Save
Save As
INPUT
THRESHOLD
ATTACK
RELEASE
OUTPUT
COMPRESSOR / LIMITER
M/S

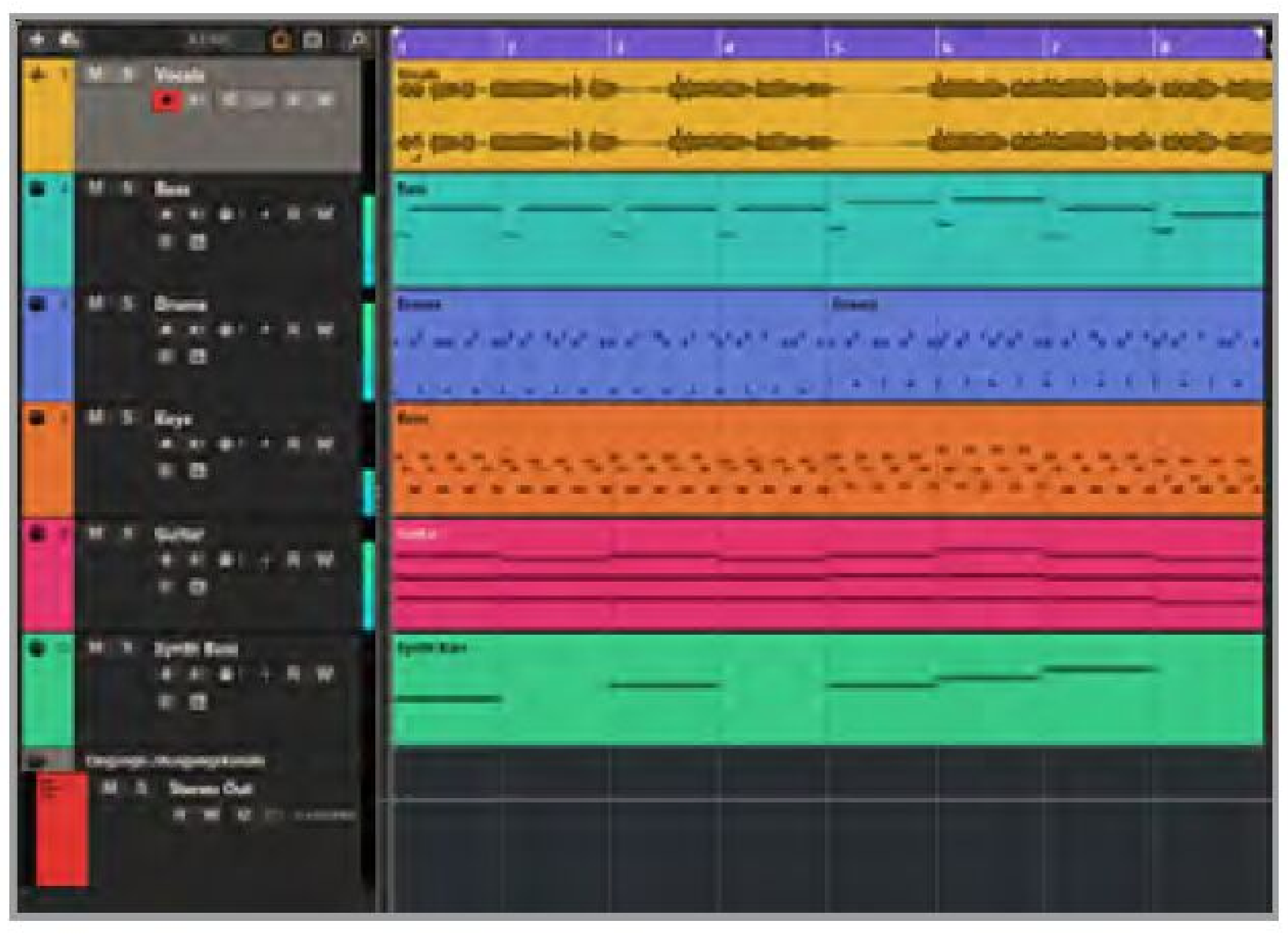
6 Dynamic vocals

Activate the **Hard** Mode and the Sidechain option (**SC**) here. Medium **Threshold**, **Attack** and **Release** values are a good start. You can turn up the **Input** control to thicken the vocals. IK Multimedia's Manley Vari-Mu emulation also does an excellent job of gluing drums and bass into a single unit.


Drum & Bass Buss
Save
Save As
INPUT
THRESHOLD
ATTACK
RELEASE
OUTPUT
LINK
GANG
COMPRESSOR / LIMITER
M/S

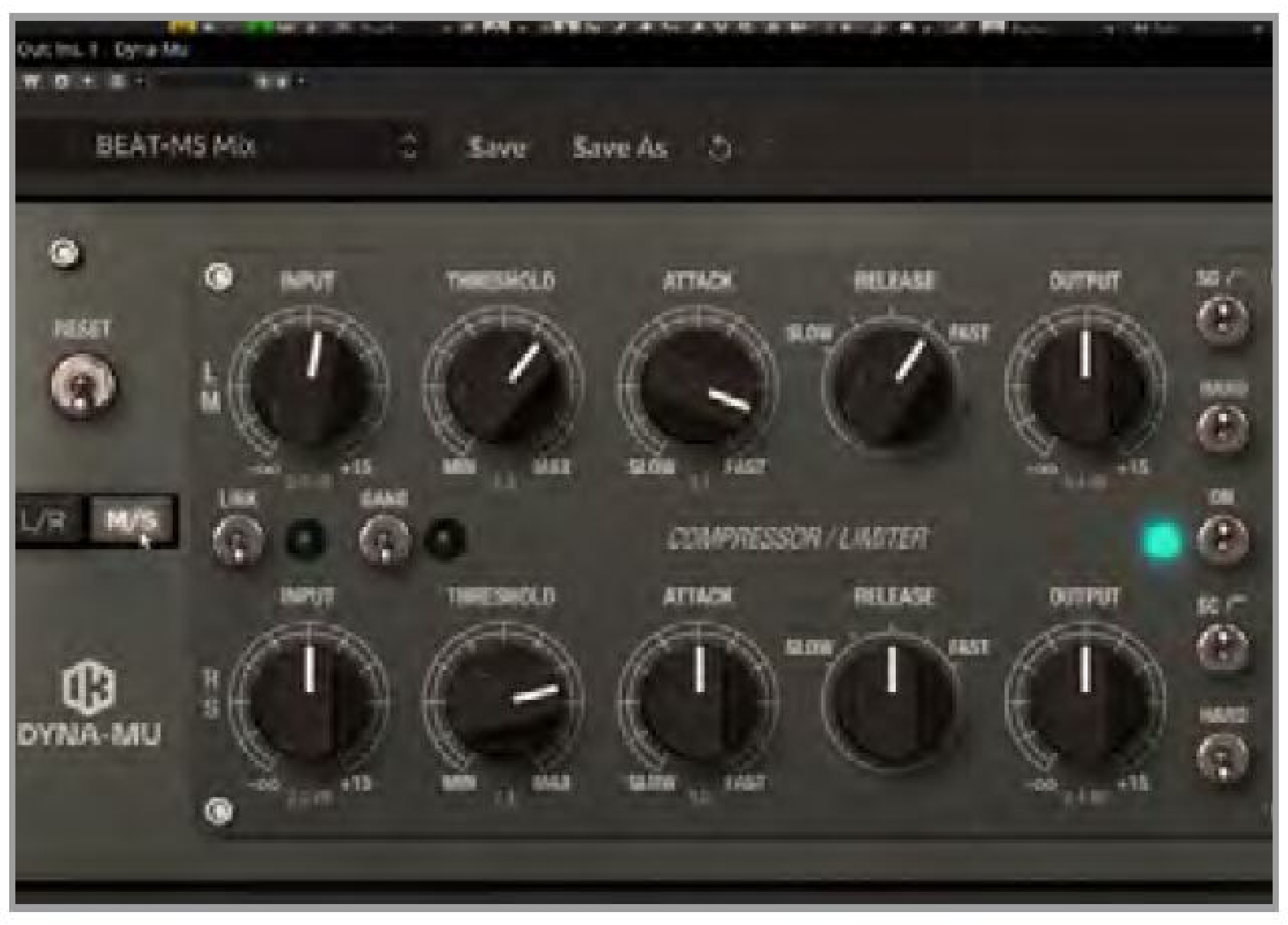
7 Drums and Bass

Route this to a Group Channel and load Dyna-Mu as an Insert. Here, we select the **Soft** Mode, which uses a Ratio of around 1.5:1. The result is softer compression. Now set the **Threshold** to the middle, **Attack** to **7.0** and a medium **Release** value – and your groove is set! Experiment with the Input and Output Gain.


Vocals
Bass
Drums
Keys
Guitar
Synth Bass

8 Dyna-Mu

How does the compression affect the overall Mix? Simply switch the plug-in to Bypass and compare. Dyna-Mu can also be used as an Insert in the Mix Bus to glue the individual elements of a song together in a very musical way. Deactivate the **Link** and **Gang** options here and activate the **Sidechain** Mode for both rows.


BEAT-MS Mix
Save
Save As
RESET
INPUT
THRESHOLD
ATTACK
RELEASE
OUTPUT
L/R
M/S
COMPRESSOR / LIMITER
DYNA-MU

9 Mids and sides

Then, select the **Soft** Mode and also activate the **M/S** Mode. Now you can compress the Mid Signal (top row) more to bring lead vocals and instruments, as well as drums, to the front with shorter **Attack** and **Release** times. The side section, on the other hand, is processed more gently so that the Mix sounds open and airy.

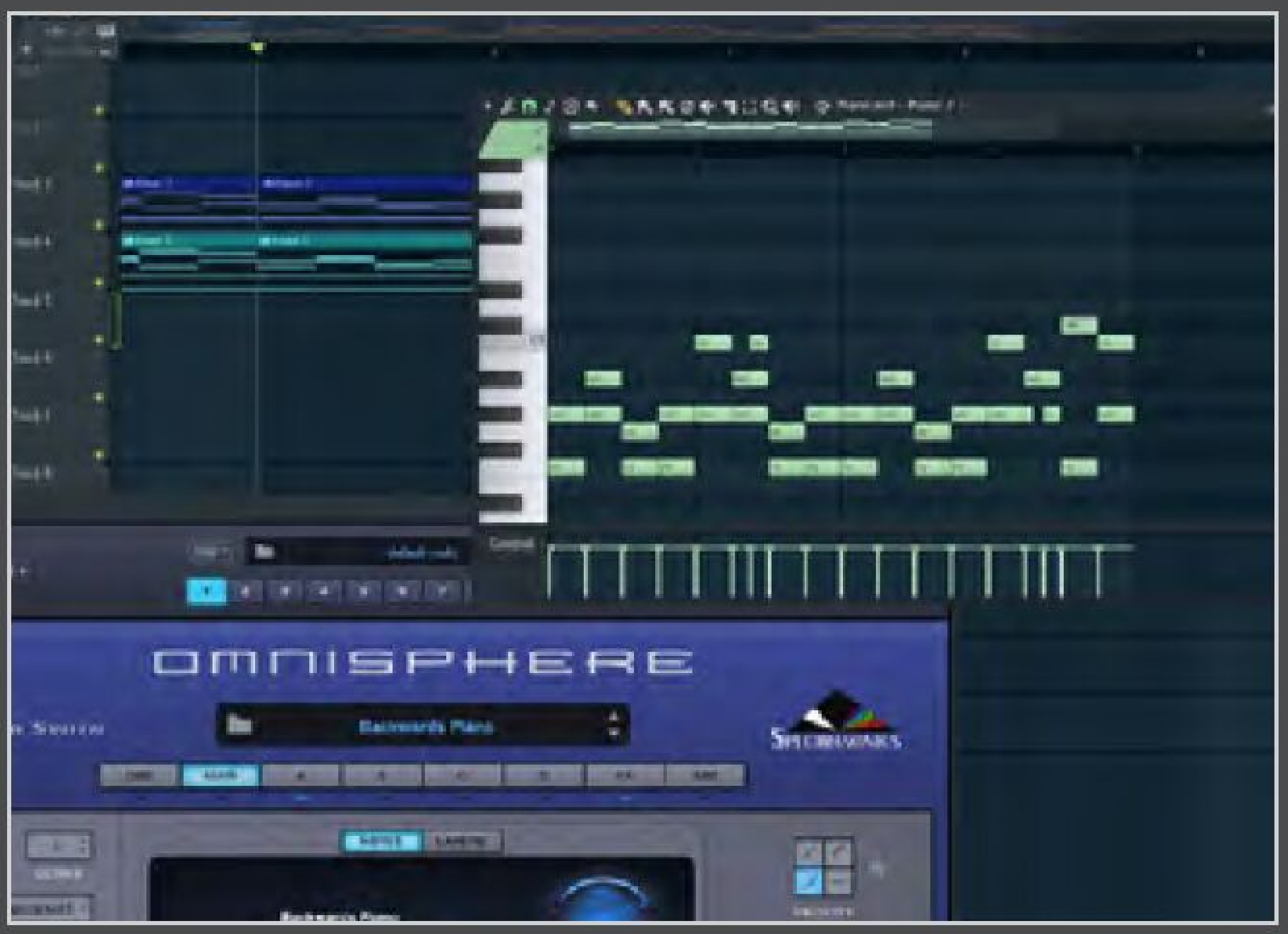
Power Producer: FL Studio

Hard beats like Lacazette

The up-and-coming street rapper from Berlin has been inspiring more and more fans with his characteristic sound since the beginning of 2024. His beats strike the perfect balance between emotional atmosphere and heaviness in a minimalist style. In this workshop, you will learn how to build these beats yourself and capture their unique flair. **by Ruben Mantel**

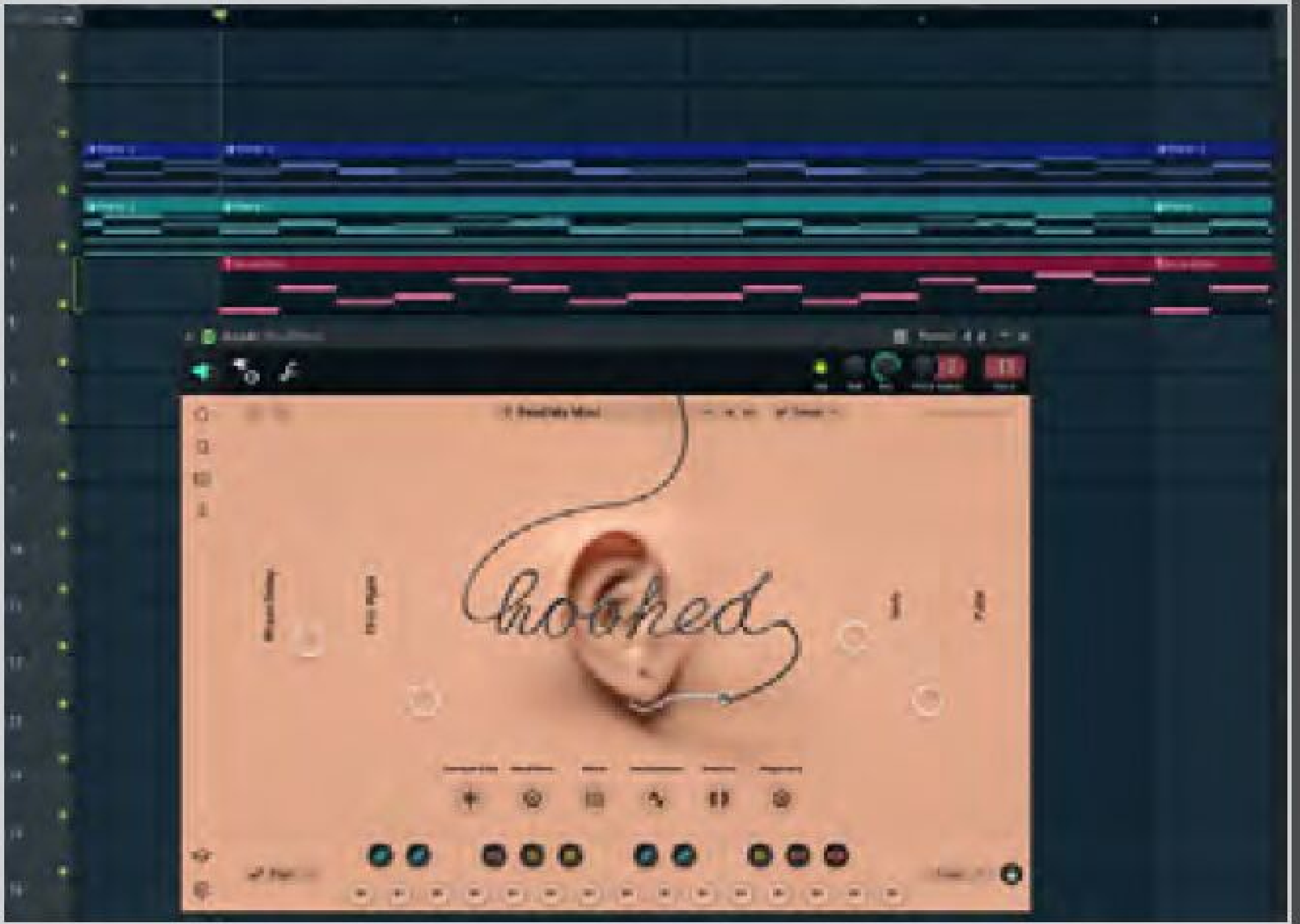
Project info

Material: FL Studio 2024
Time required: About 1.5 hours
Content: Production and mixing of a beat in the style of Lacazette
Difficulty: Advanced



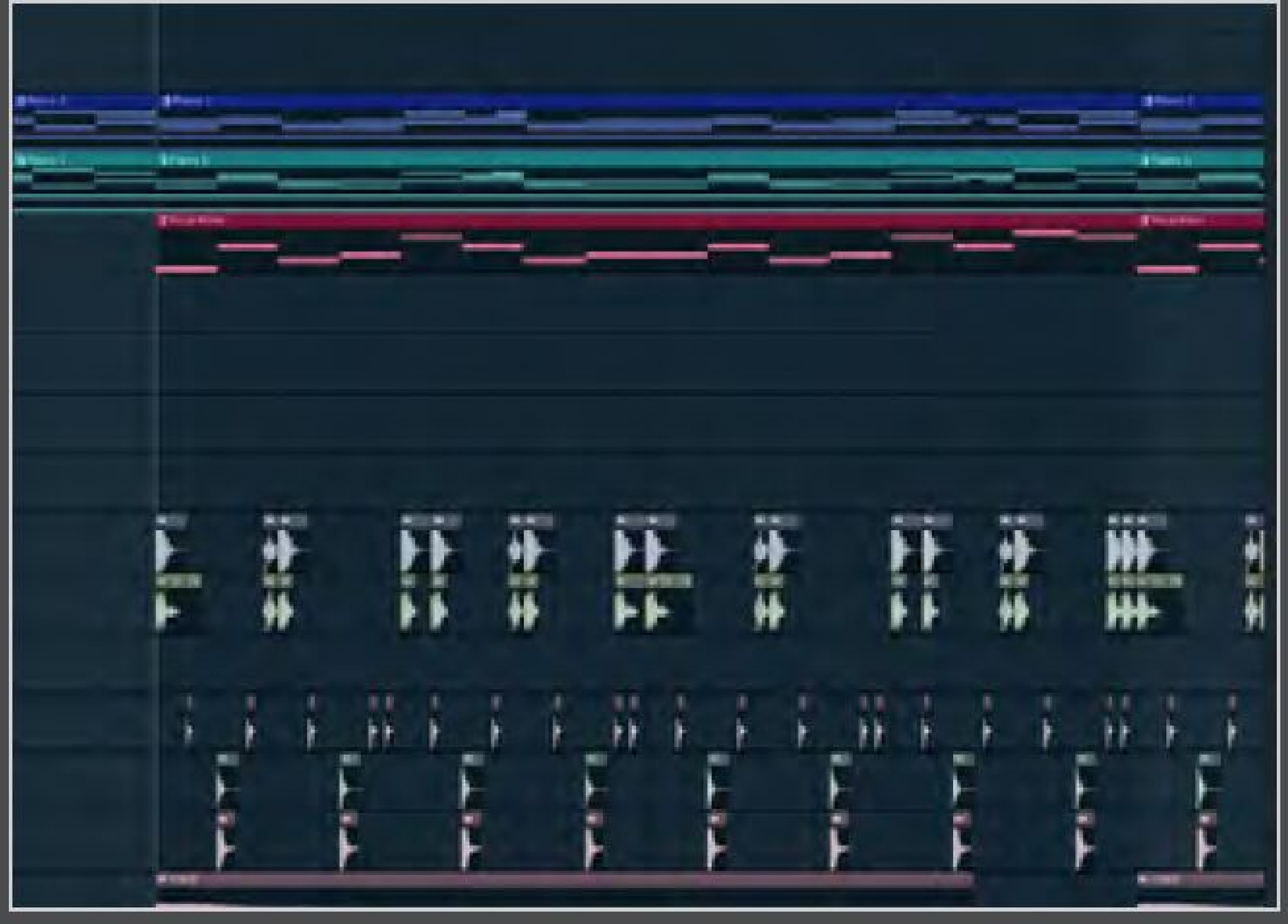
1 Main Loop

In many of Lacazette's beats, **keys** with an analog flair are the primary instruments for the main loop. Only one **chord progression** is played with a minimalist top melody, which should also be the focus. As is so often the case, **layering** can be the key to a sound with a strong character. The tempo is between **80-100 BPM**.



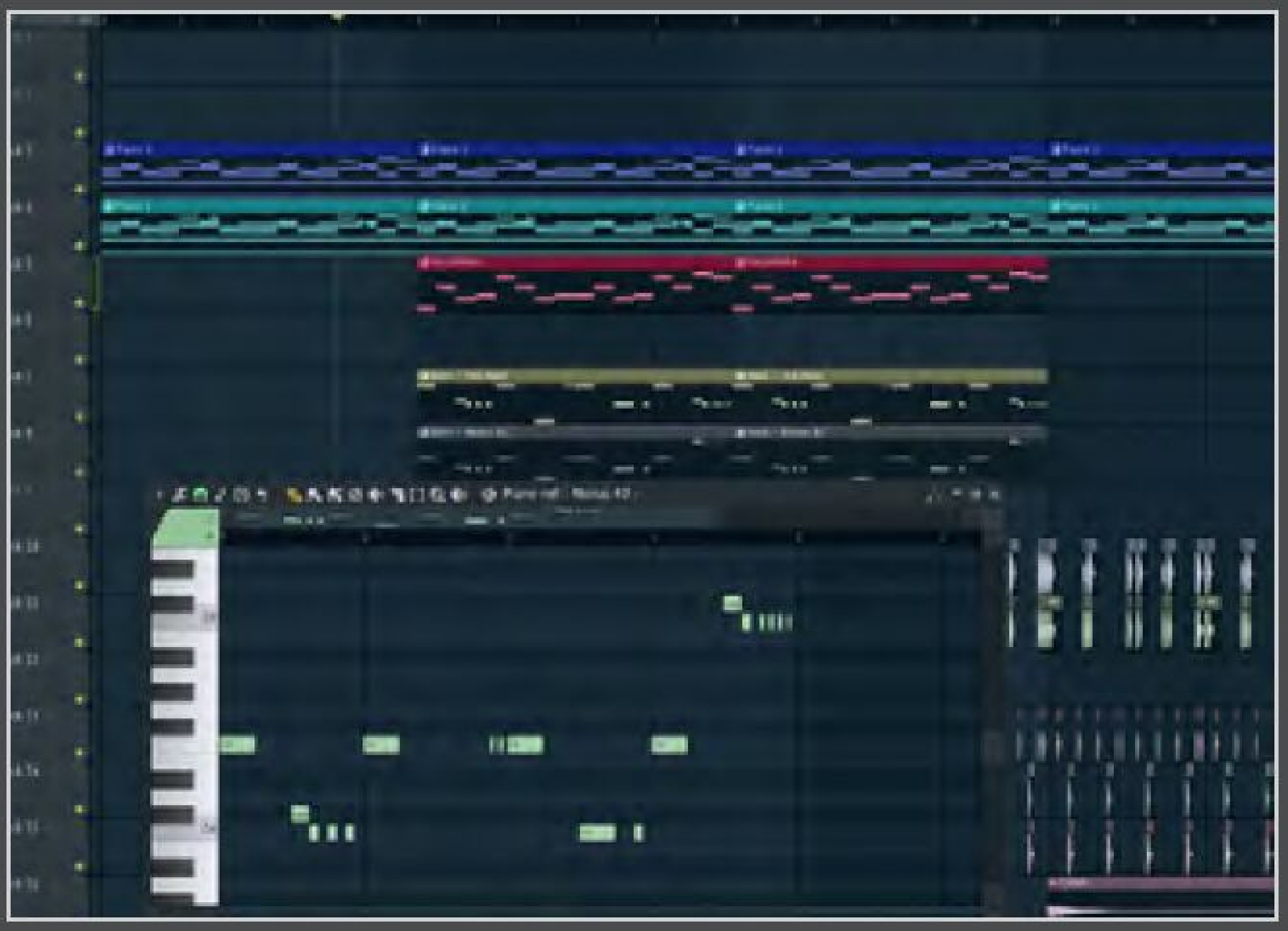
2 Atmosphere!

As the main loop has been kept melodically minimalist, there is more room for atmospheric **vocal chops** in the mix. Plugins such as **Arcade** from Output are very helpful for this. Ultimately, however, it doesn't matter whether the vocal chops come from plugins, your own recordings or samples. The main thing is to add plenty of **Reverb** and **Delay**.



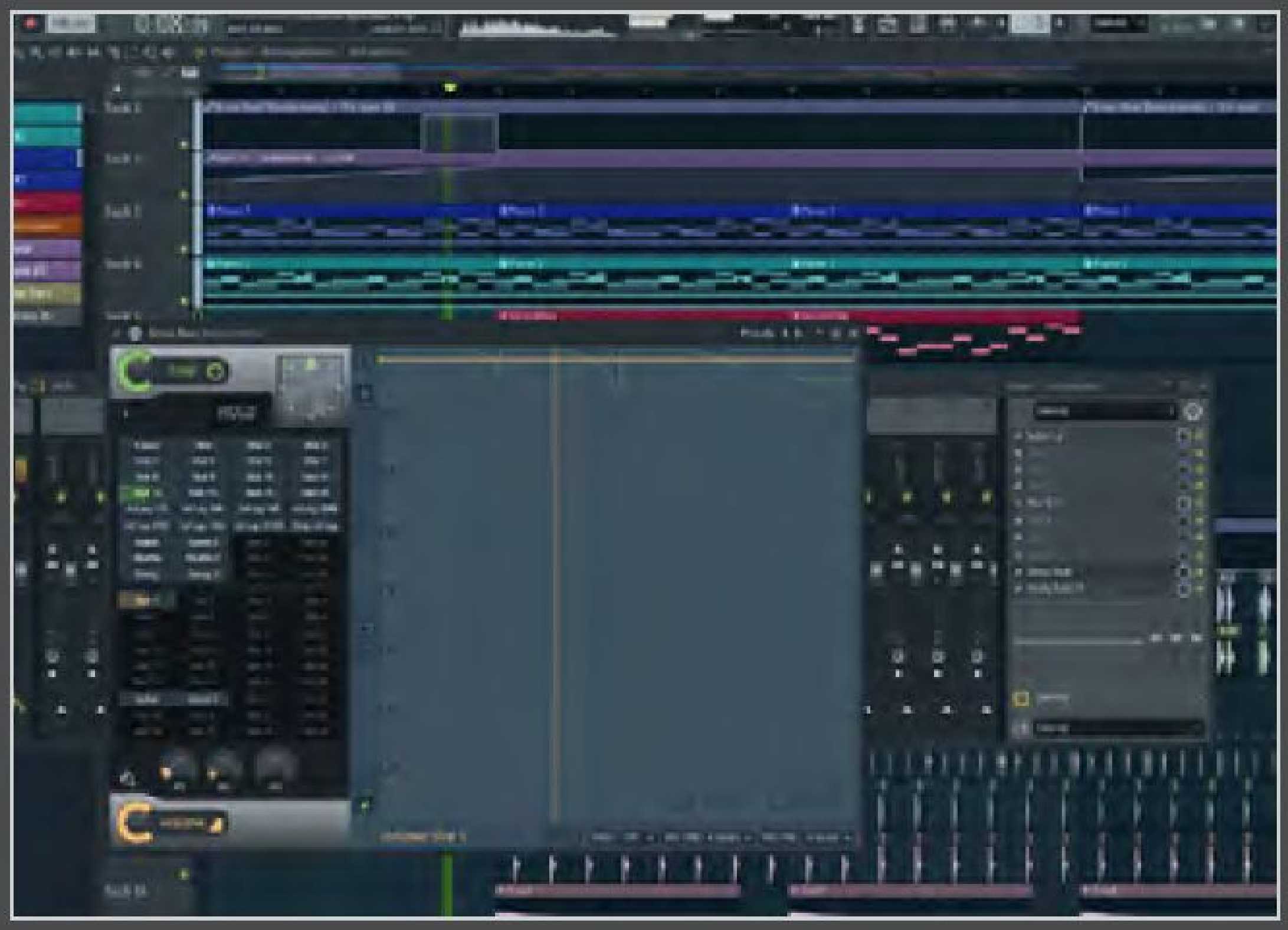
3 Drum bounce

The drums are not very **Boom Bap** oriented. This means that we place a Snare on the **second** and **fourth** beats, while we place a Kick on the **first** and **third**. The **Hi-Hat** plays in between on the **offbeat**. A few additional hits of the kick for a better **groove** and **cymbals** decorate the drums.



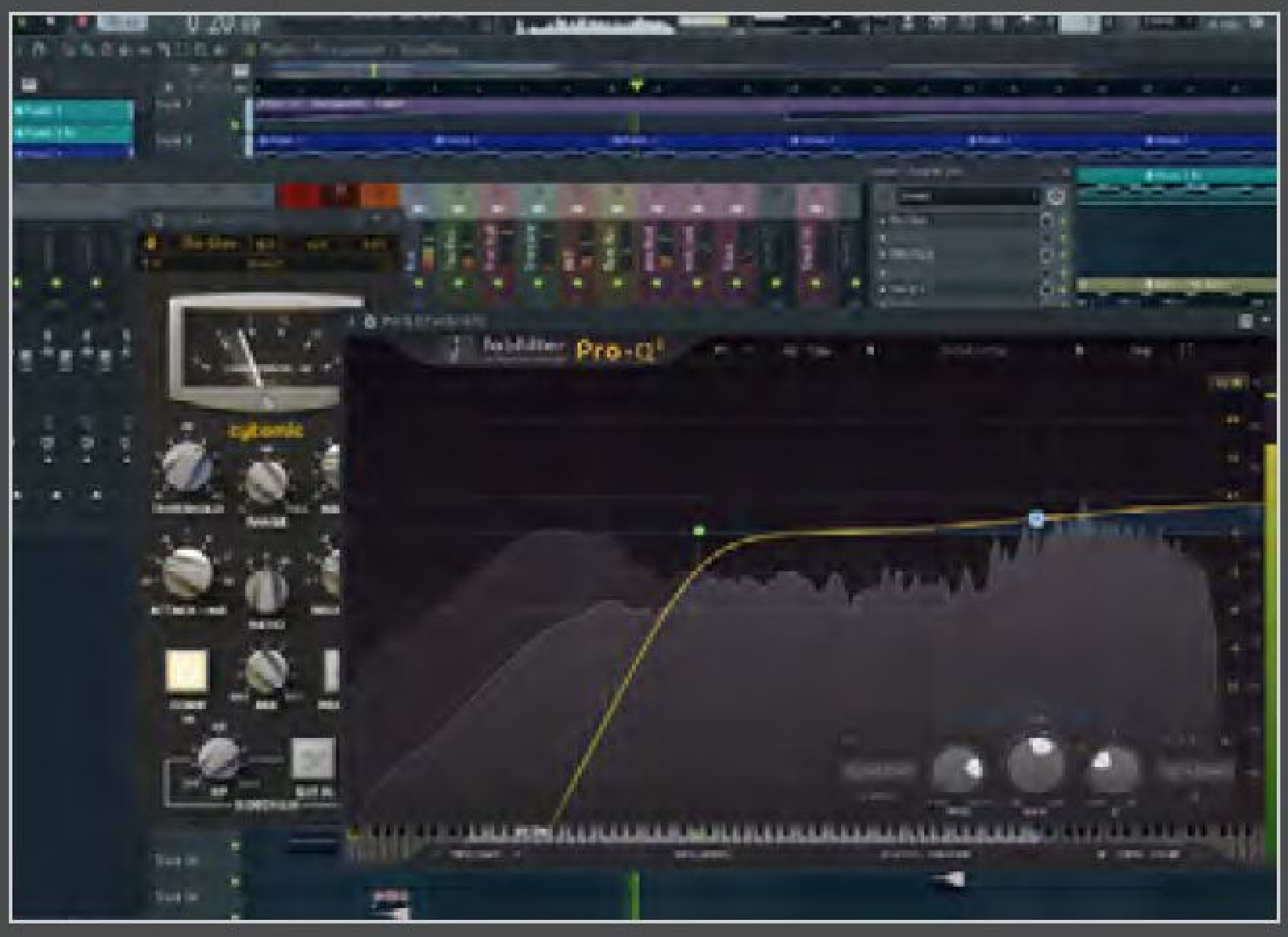
4 The gap filler

The kick is accompanied by the bass, which is intended to sound reminiscent of **analog synthesizers** and **rhythmically** fills the gaps in the **low end** between the Kicks, creating a groove that invites you to nod along. Nevertheless, it is important to **sidechain** the Kick to the Bass in order to avoid unwanted overlapping.



5 Transitions

Transitions are important for the tension of the song. For this beat, we use **Tape Stutter Effects** for more exciting transitions. To do this, load the **Gross Beat** plugin onto the Master or Instrument Bus and select a **Stutter preset**. Then, automate the entire plugin so that it's only active at the **transition points** in the beat.



6 Mixing philosophy

Use **Parallel Compression** for the **balance** between atmosphere and harshness and a high-shelf EQ to make the drums sound very **present** and **direct**. Also, clean up the **low end** so that only the **Kick** and **Bass** can unfold there. Also use **Reverb** and **Delay** on the instruments for an atmospheric touch.

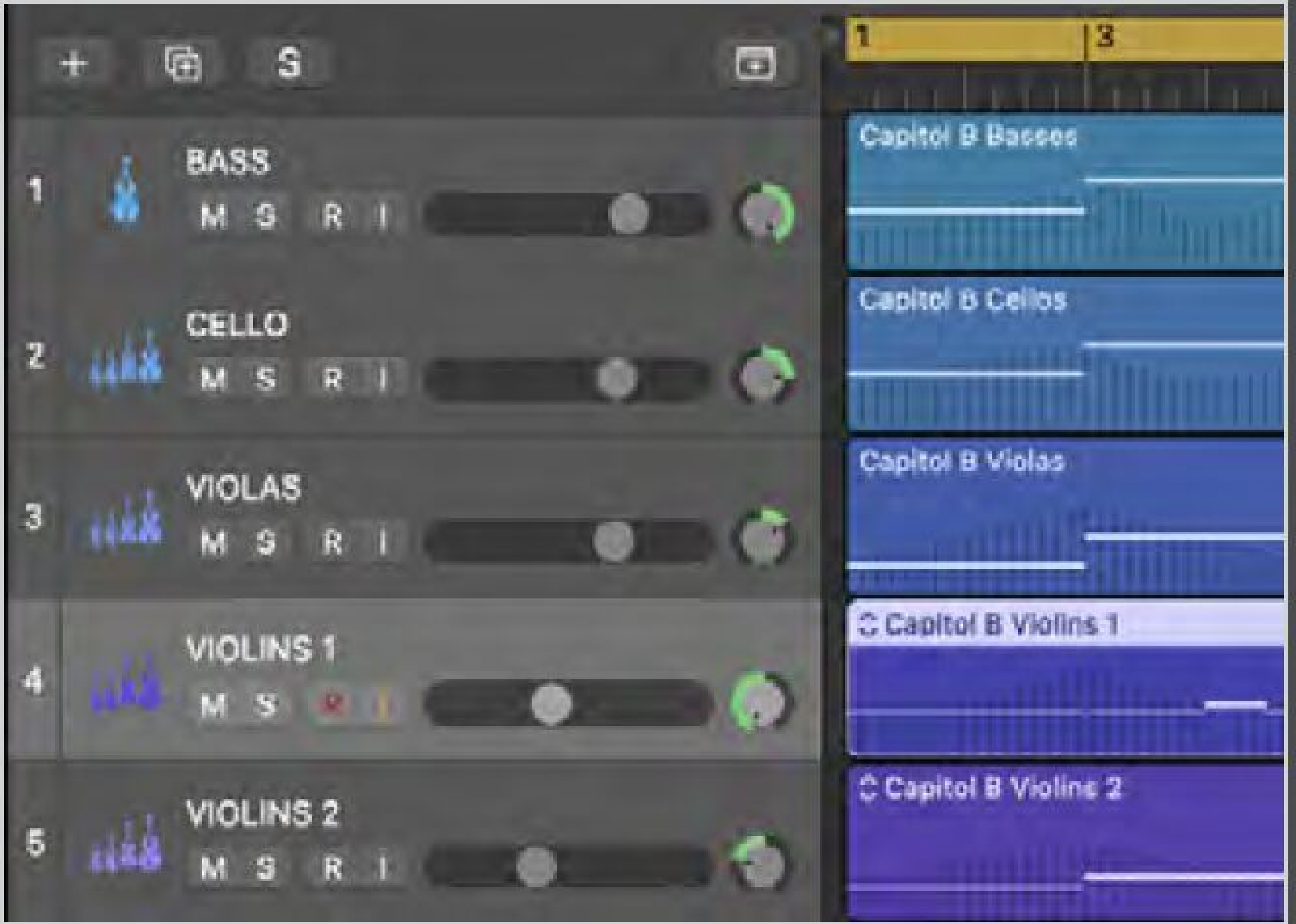
Power Producer: Logic Pro 11

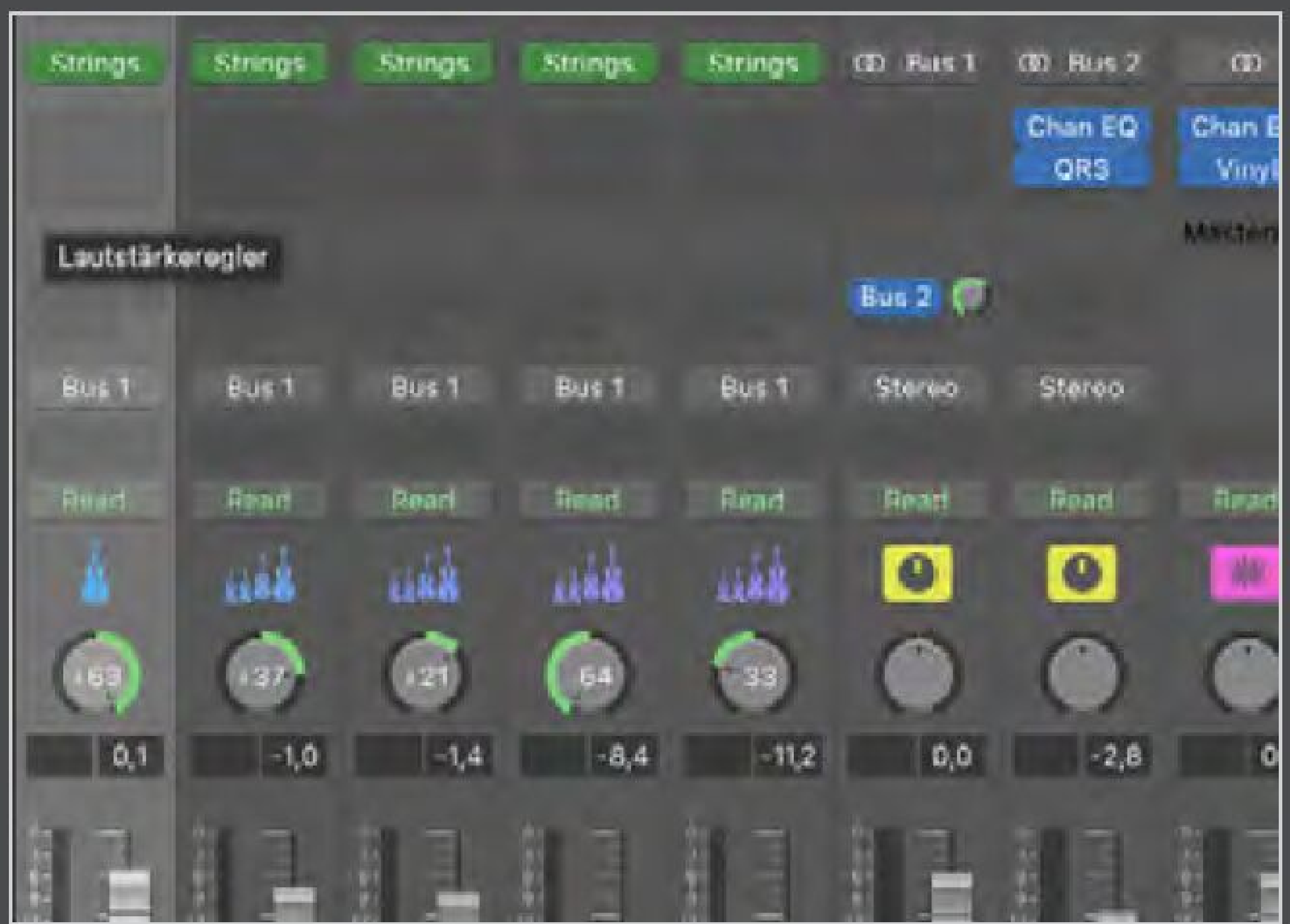
Strings for goosebump feels

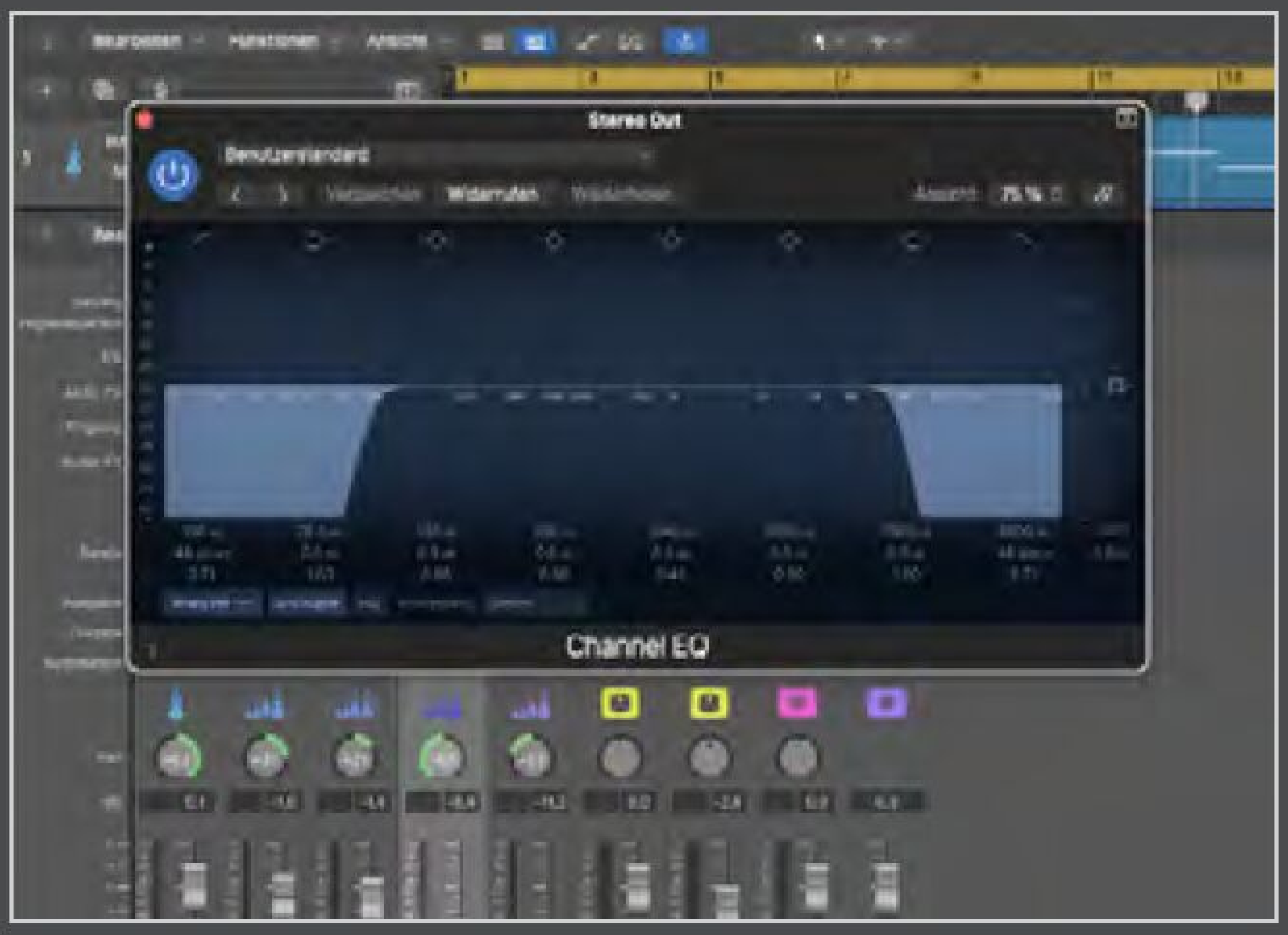
In this episode, we‘re looking at an instrument group that gives you goosebumps - the strings. In this workshop, we show you how you can easily create a 50s Vintage String Sound. **by Stefan Hofmann**

Project info

Material: Logic Pro (Version 11.1)
Time required: 30 minutes
Content: Design vintage strings
Difficulty: Beginner


BASS
CELLO
VIOLAS
VIOLINS 1
VIOLINS 2
Capitol B Basses
Capitol B Cellos
Capitol B Violas
Capitol B Violins 1
Capitol B Violins 2


Strings
Lautstärkeregler
Bus 1
Bus 2
Stereo
Read
Chan EQ
QRS


Stereo Out
Channel EQ

1 The source material

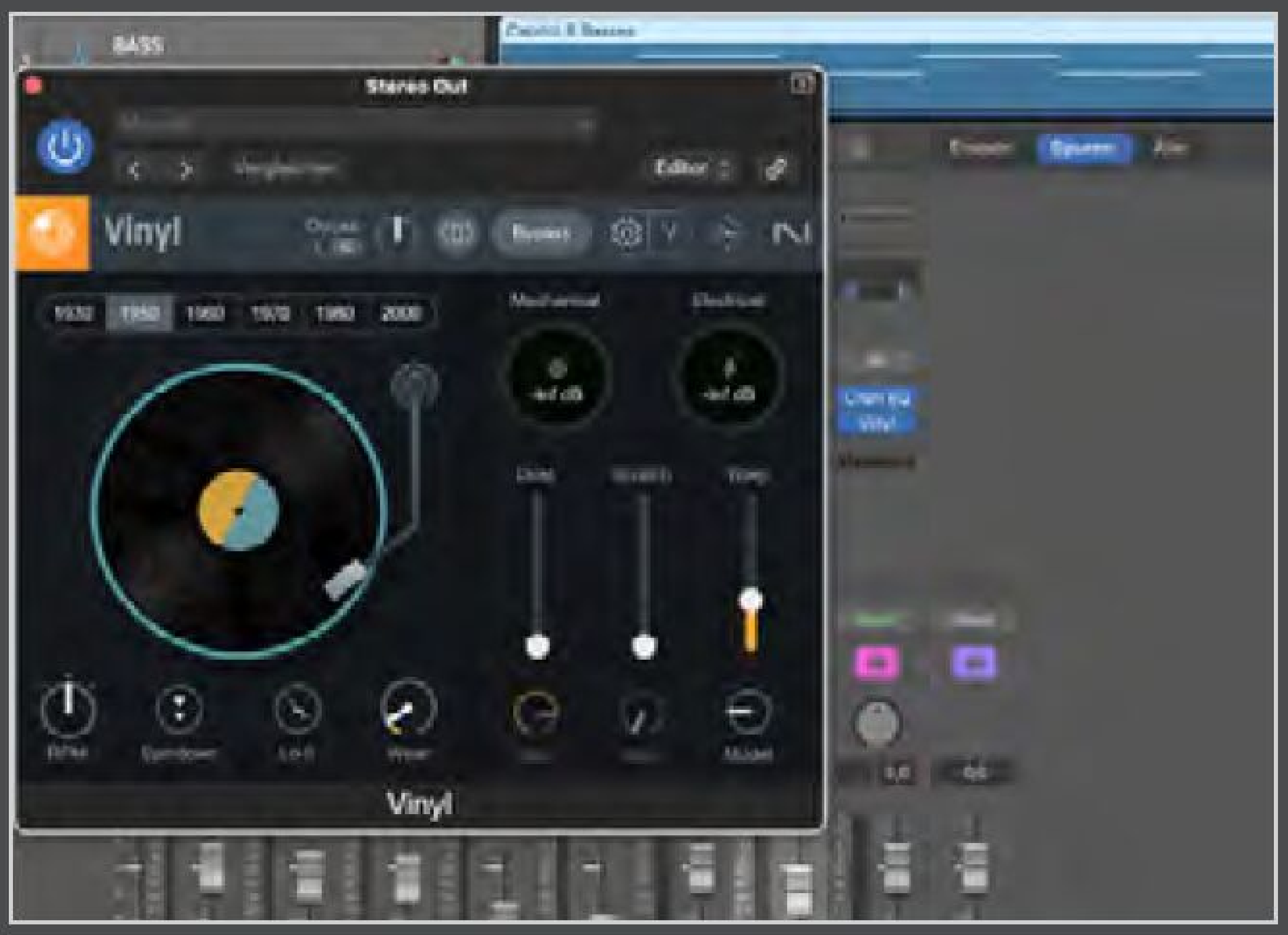
Natural-sounding string sounds are suitable as source material for vintage strings. The better the quality of the recording, the better the end result. It doesn‘t matter whether you use a loop library or record something with a sample library. We loaded the Studio Strings and put the individual instruments on the tracks. ⁘

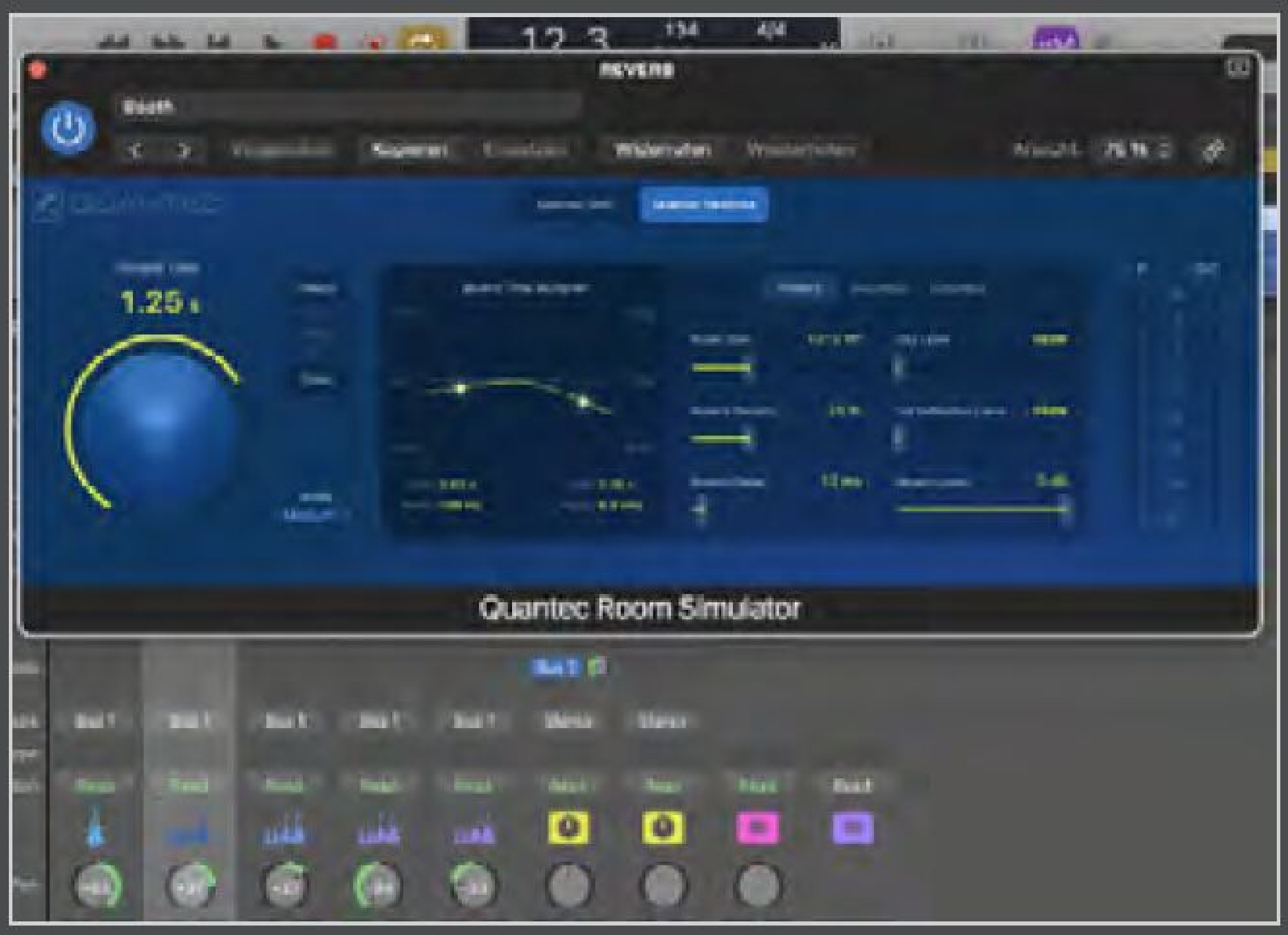
2 Beautiful Strings

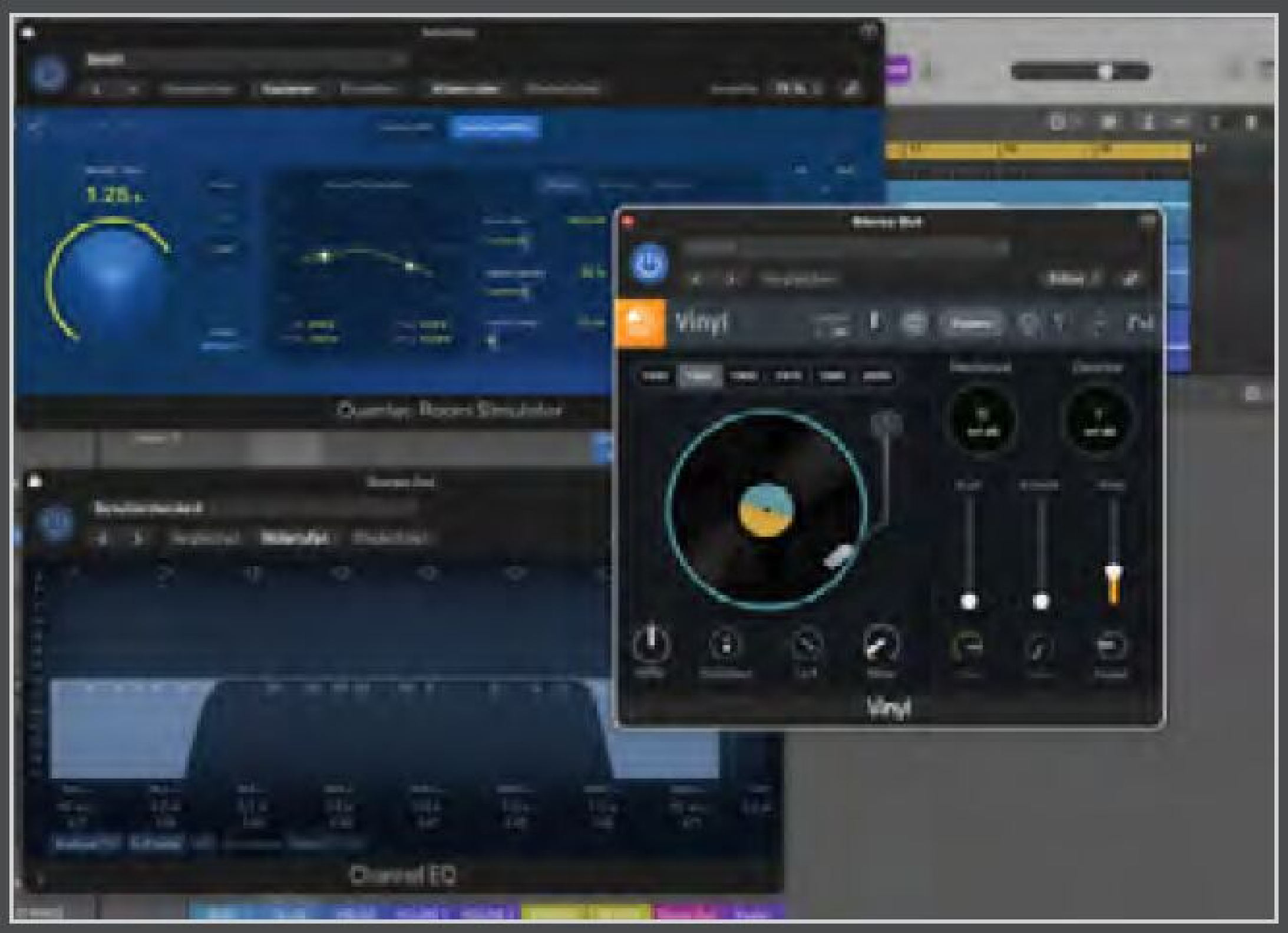
First we played the Double Basses, then the Cello, followed by the Viola and the Violins. Then, we had to distribute the instruments around the room - Double Basses at 5 o‘clock, Cello at 3 o‘clock, Violas at 1 o‘clock, Second Violins at 10 o‘clock and First Violins at 7 o‘clock. A bus is also needed to route the tracks and feed the reverb. ⁘

3 EQ for sound design

After we‘ve adjusted the volume ratios, we continue with the sound design. Old string recordings only come with a limited frequency spectrum. We load an EQ onto the Master. With a Highcut at around 5,500 Hz and a Lowcut at around 100 Hz, we create a vintage feel. ⁘


Stereo Out
Vinyl
1930
1950
1960
1970
1980
2000
Vinyl


REVERB
Booth
1.25 s
Quantec Room Simulator


Quantec Room Simulator
Vinyl
Channel EQ

4 iZotope Vinyl

To make the sound more old-fashioned, we use a free plugin - iZotope Vinyl. We set the decade to 1950 and the only important parameter for our project is “Warp”. This colors the signal with artifacts typical of the playback devices of the time. A value of around 20 percent is sufficient here. ⁘

5 Some reverb

The important thing with a vintage recording is that the reverb space is quite small. This means less spacious and somewhat more direct than today‘s orchestral productions. We used Logic‘s new Quantec Room Simulator with the “Booth” preset. Pull the reverb level control up and set the Send of the bus to 1.0. ⁘

6 Be creative

The tools and techniques mentioned in this article not only provide a vintage effect for string sounds. Entire orchestras, big band recordings or modern loops can also be colored in this way. We hope you enjoy this little journey through time and old-school sound design. See you next time! ⁘

Presets and audio demos in the magazine downloads (see page 9)

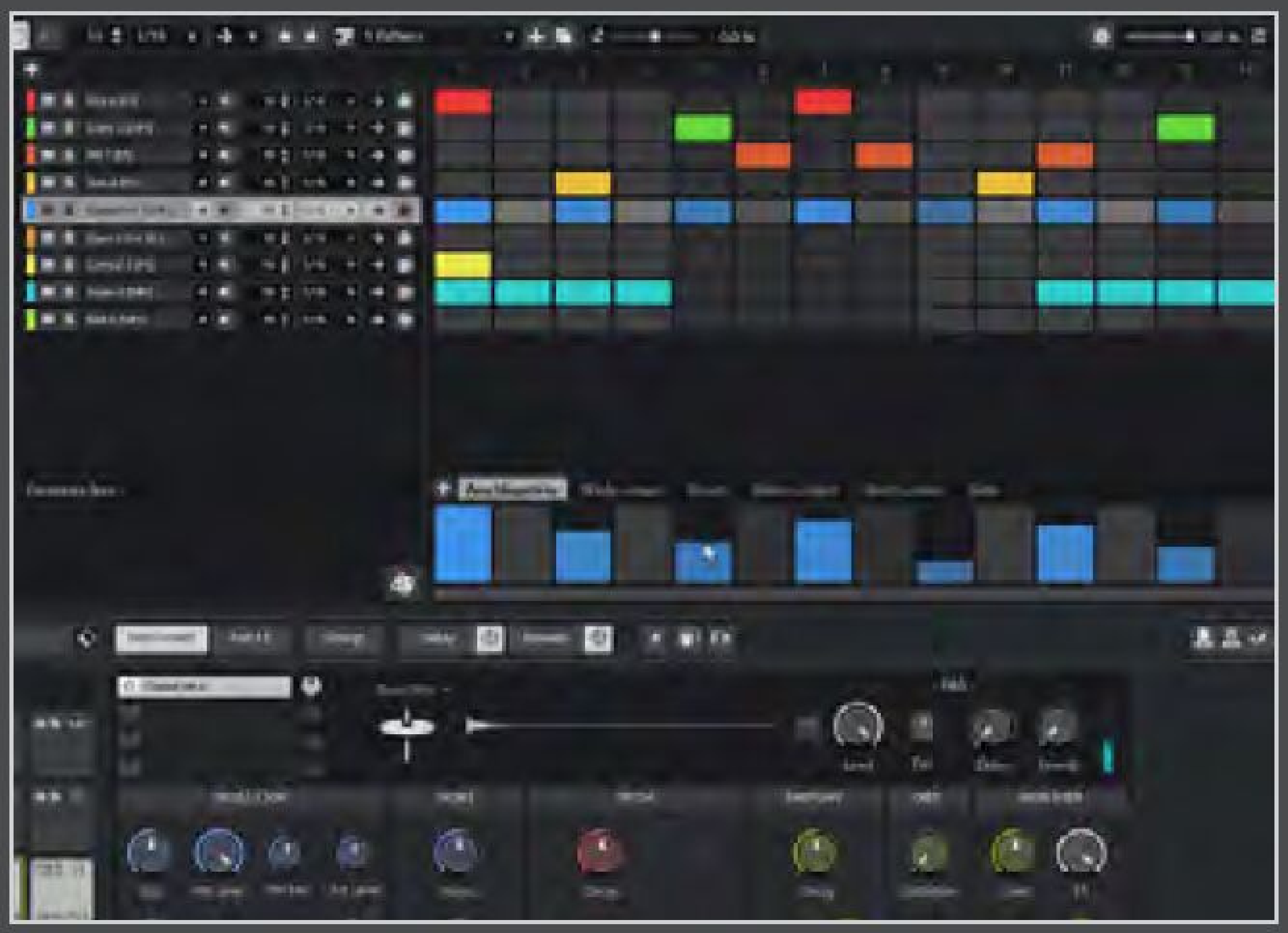
Power Producer: Steinberg Cubase

Model:Cycles in Cubase? (Part2)

After creating an FM Drum Kit for Cubase's new Drum Synth in the last issue, we're now getting down to the nitty-gritty: Using the Euclidean Generator and randomization, we create fresh patterns that are constantly evolving, thanks to the Probability function and Automation. **by Vera Schumacher**

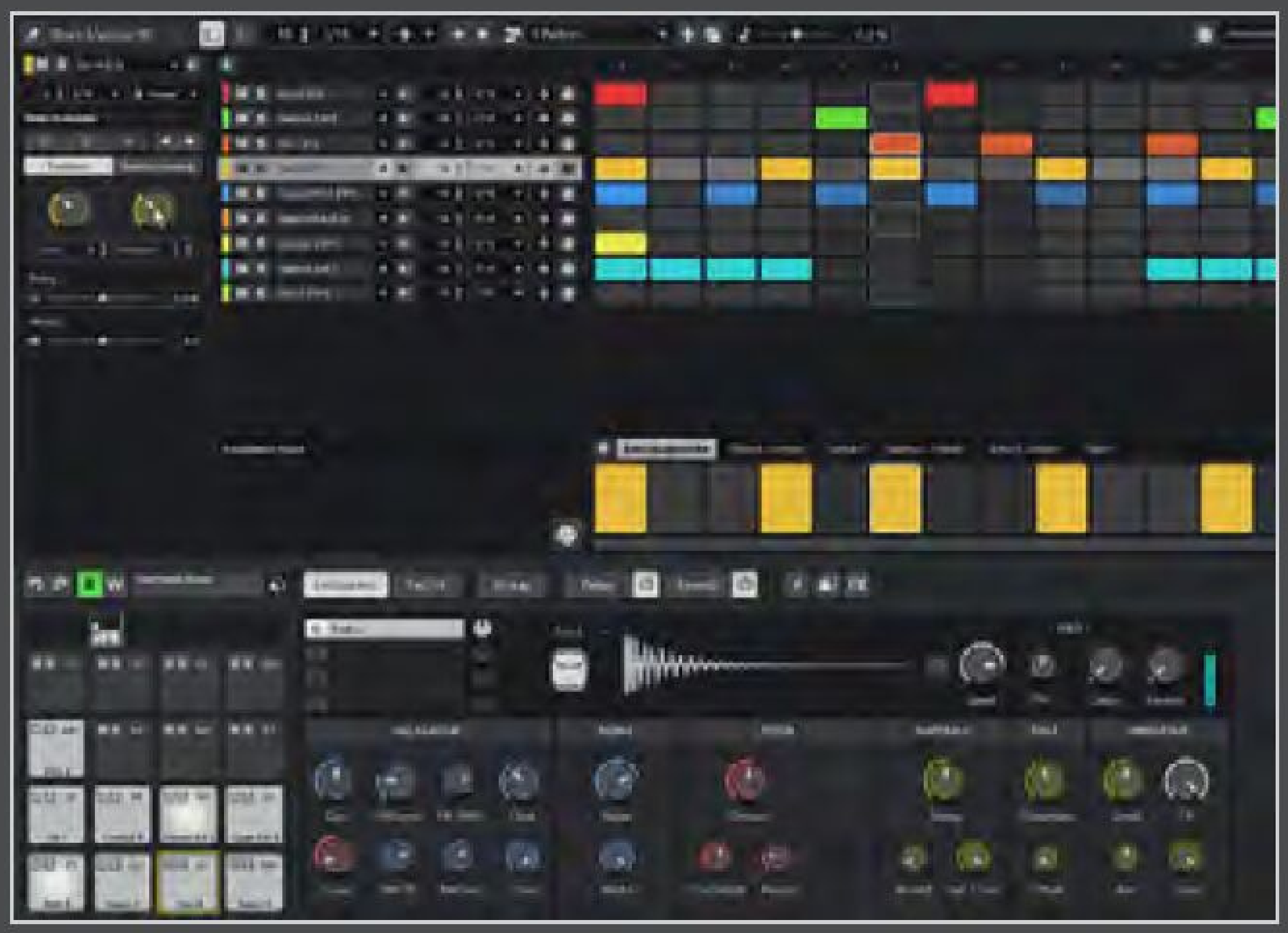
Project info

Material: Cubase 14 Artist or Pro
Time required: About 30 minutes
Content: Create dynamic drum patterns by controlling sound parameters and using the Probability function
Difficulty: Advanced



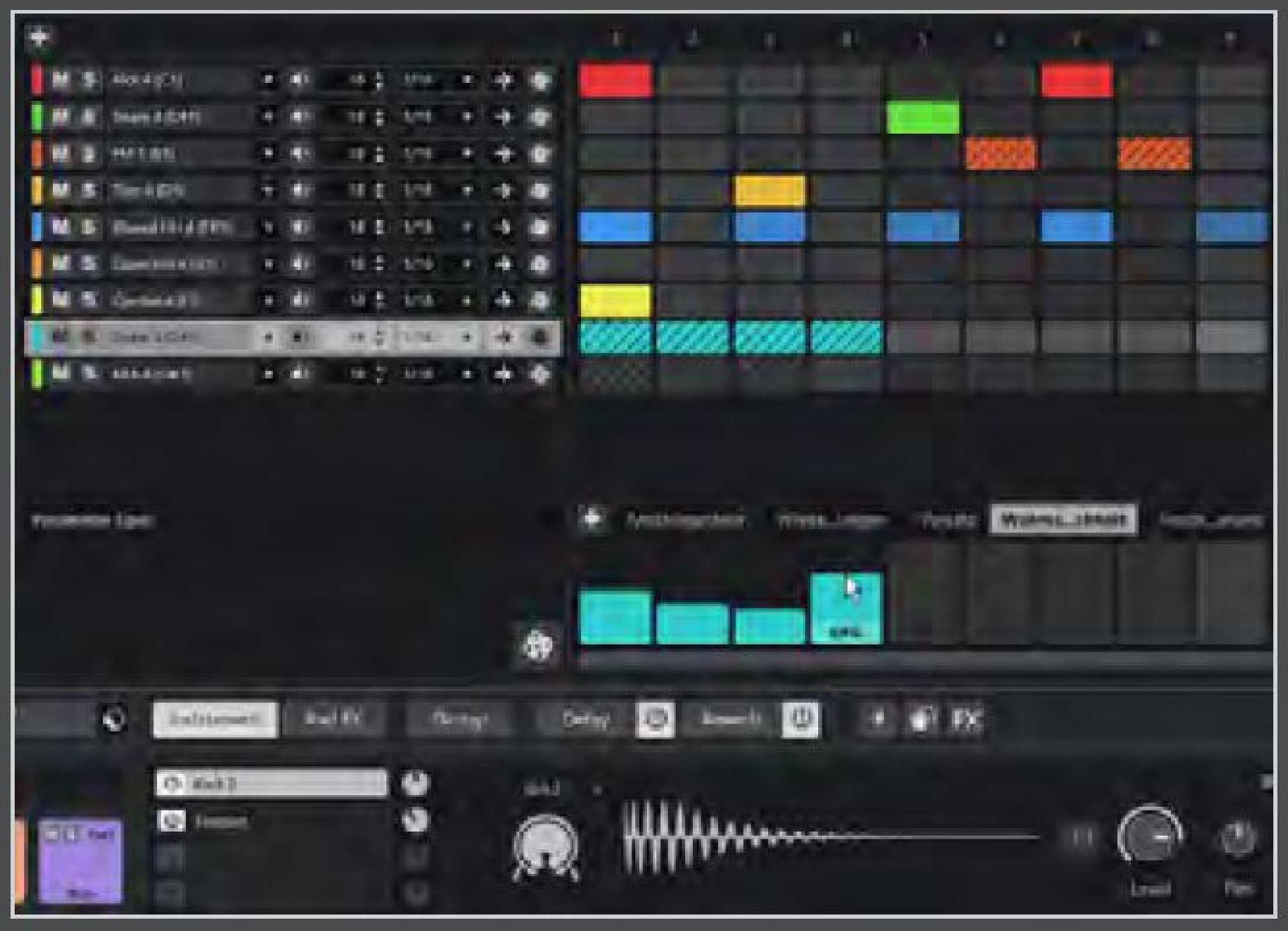
1 The new drum synth

Start with our drum kit from the last issue; you can simply use the corresponding Cubase project from the issue data. Then, open the sequence of the drum track. In addition to the Velocity, you can also control parameters such as Offset, Velocity Variance and Gate Length for each step. This makes your pattern sound livelier with just a few clicks.



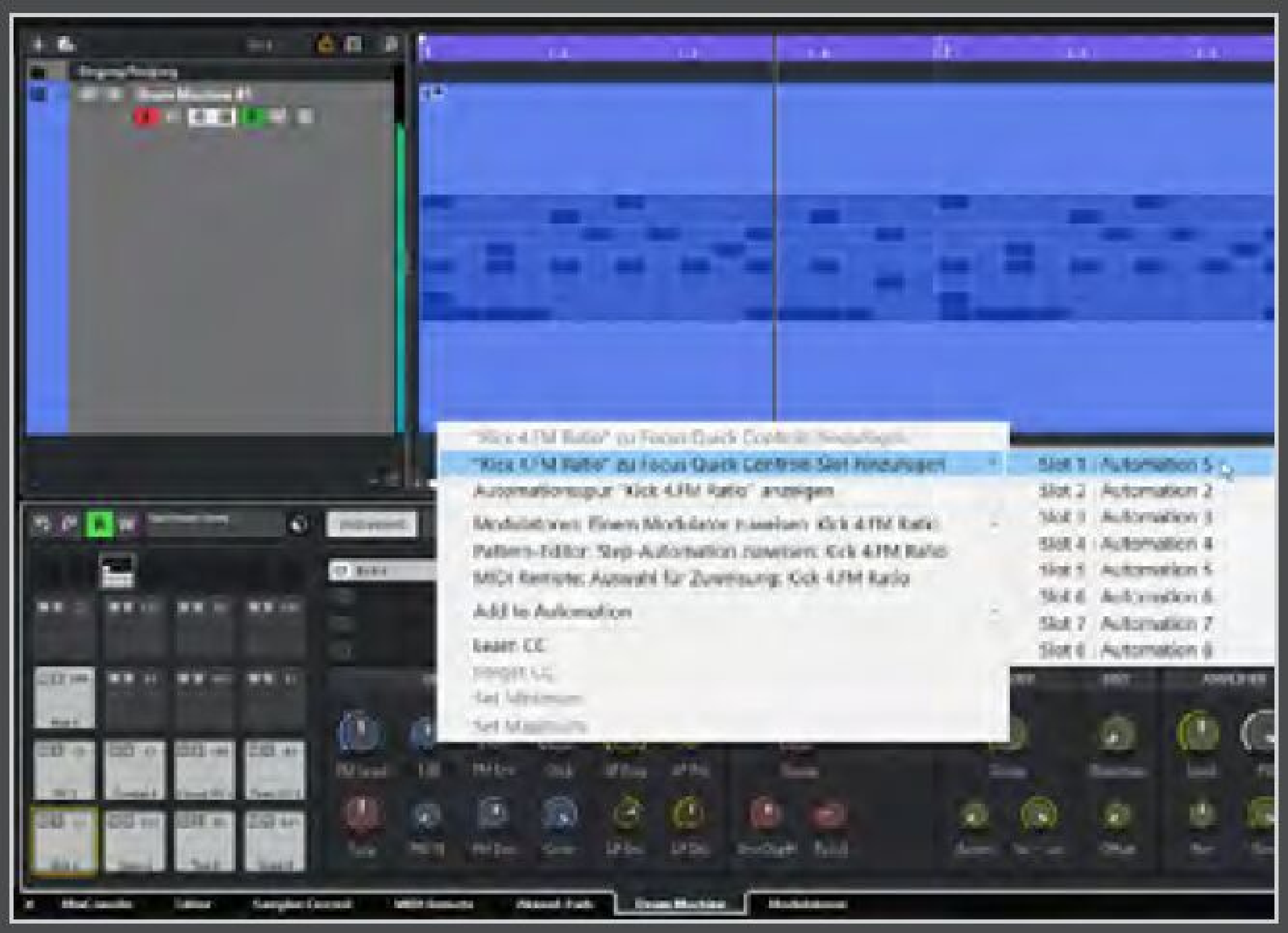
2 Rolls and More

You can use the Repetitions to create rolls or glitch-like effects. Want to create a new pattern for a track (for instance with a percussion sound)? This is child's play with the Euclidian Generator, which creates a fresh sequence at the touch of a button. You can determine the number of steps and their rotation on the track.



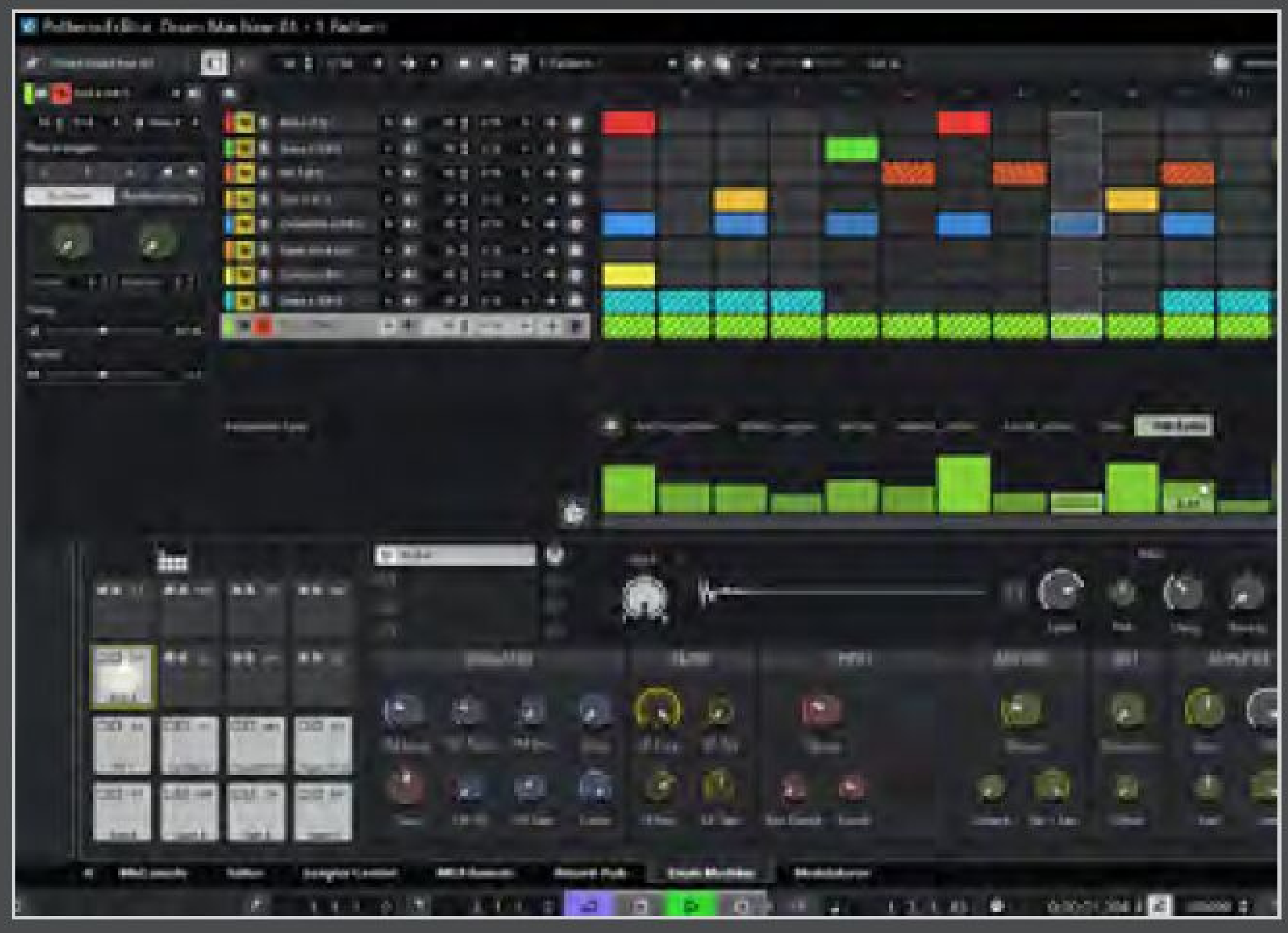
3 Elektron Vibe

Or you can create a new sequence using the Randomization Function. Parameters such as Velocity and Repetitions are diced anew with each click. The key to dynamic beats that change with every run is the Probability Function. It controls the probability with which a step is played.


"Kick 4.FM Ratio" zu Focus Quick Controls Slot hinzufügen
Automationsspur "Kick 4.FM Ratio" anzeigen
Modulationen: Einem Modulator zuweisen: Kick 4.FM Ratio
Pattern-Editor: Step-Automation zuweisen: Kick 4.FM Ratio
MIDI Remote: Auswahl für Zuweisung: Kick 4.FM Ratio
Add to Automation
Learn CC
Slot 1 Automation 5
Slot 2 Automation 2
Slot 3 Automation 3
Slot 4 Automation 4
Slot 5 Automation 5
Slot 6 Automation 6
Slot 7 Automation 7
Slot 8 Automation 8

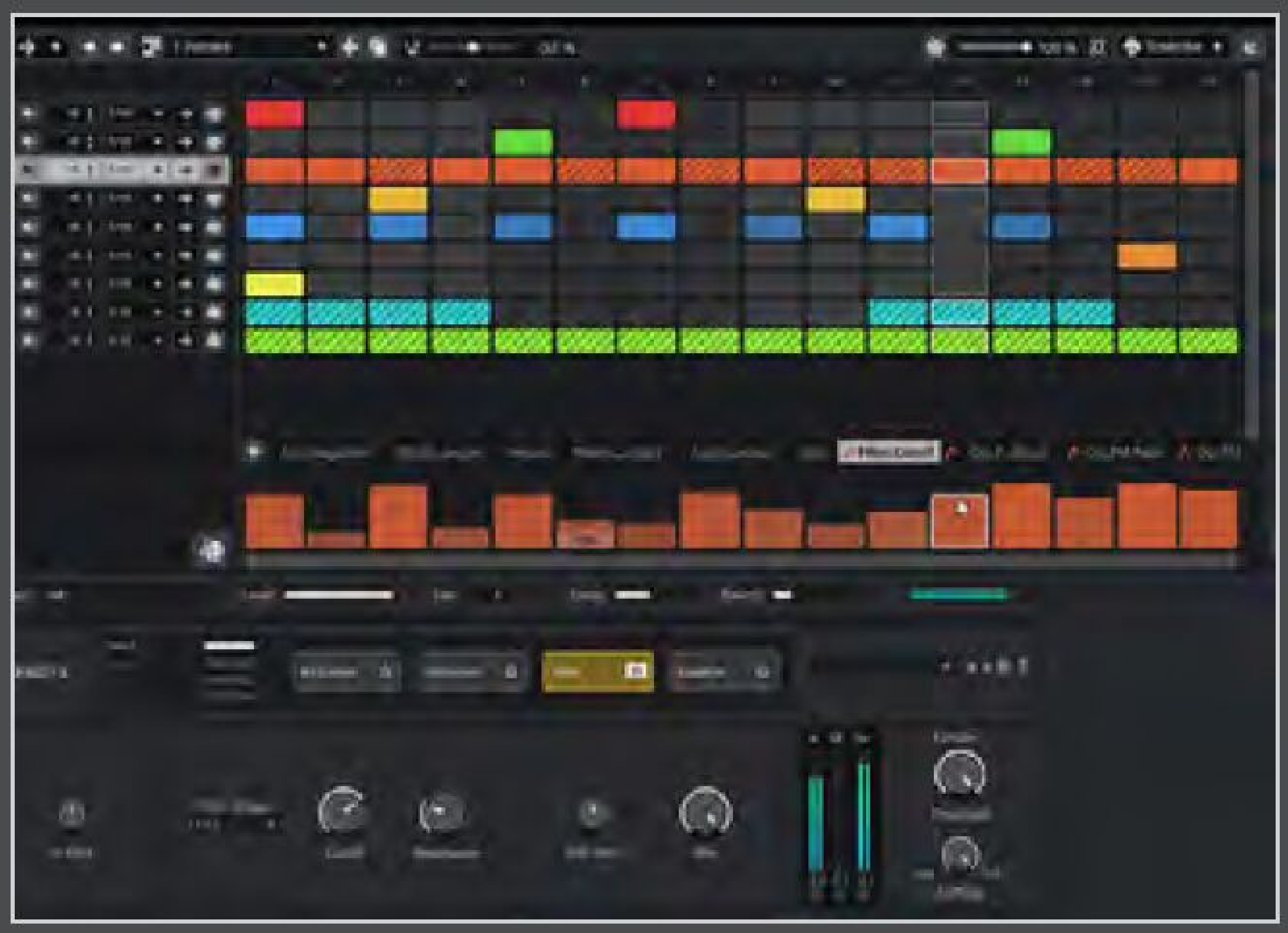
4 Sound parameters

Wouldn't it be cool if you could also modulate sound parameters in the step sequencer? Nothing could be easier! Right-click on the desired parameter of the corresponding drum track, such as FM Ratio. Then, select the entry in the menu with ...add to Focus Quick Controls slot and then the desired slot (for example 1).



5 Automation

Then click on + in the Step Sequencer and select the new Automation Track. You can now draw in the desired progression. In this way, you can also modulate other sound parameters for this or other tracks. Together with the versatile FM sound generation, you can conjure up grooves with a wide variety of sounds.



6 Experiment

Hint: The Percussion --> FM 1 Module in the Drum Synth is particularly suitable for such sound experiments. Modulate the FM Ratio, FM FB and FM Env parameters here. You can also control the Pad FX, delay and reverb parameters in this way. For example, try modulating the filter frequency or the decimation value of the Bitcrusher.

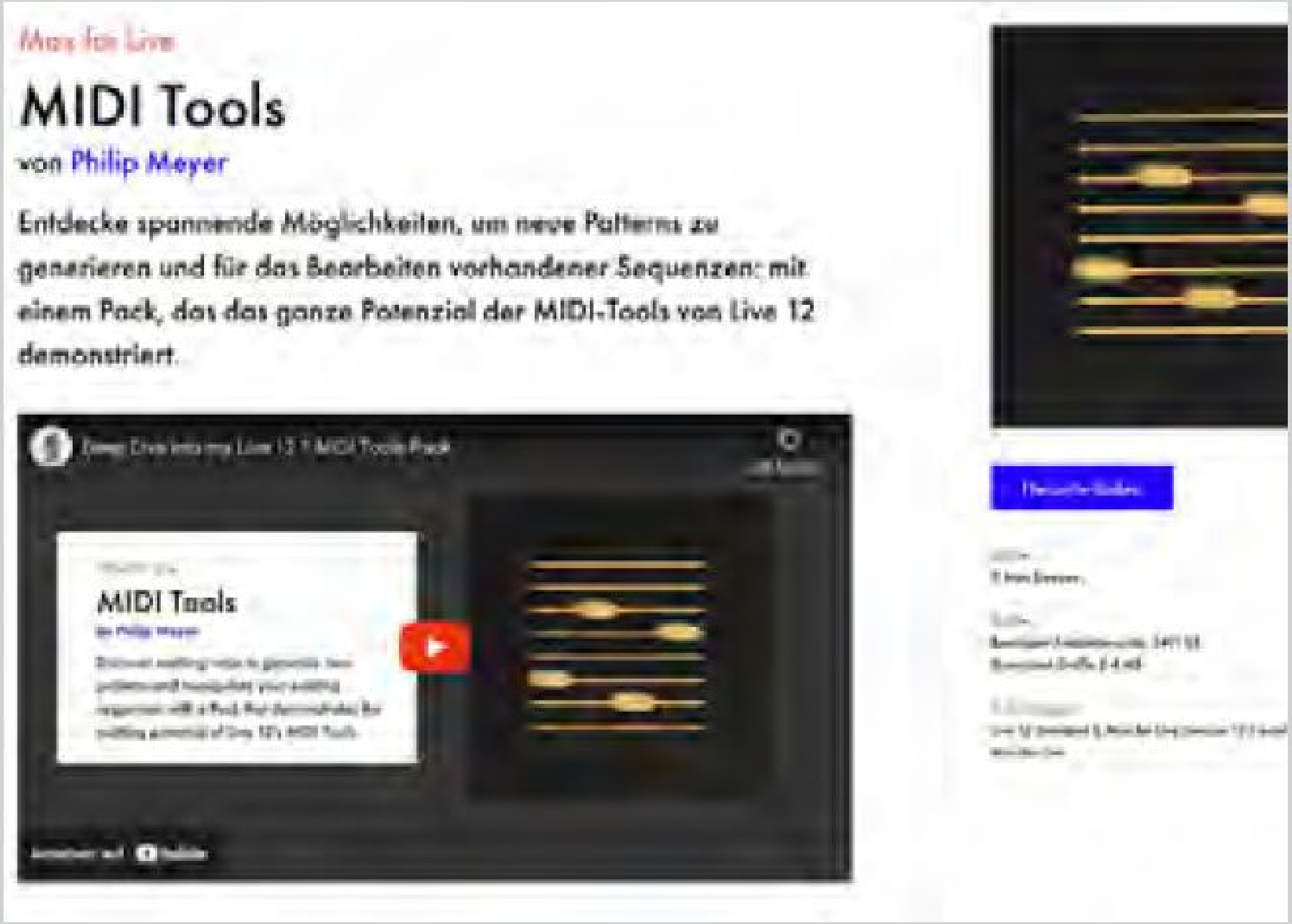
Power Producer: Ableton Live

Perfect for thrilling beats

Are you looking for new inspiration for your beats so that they don‘t sound so monotonous or boring? With Live 12.1 and the new MIDI Tools Pack by Philip Meyer, you get five powerful transformation tools with generative functions for creating exciting polyrhythms and extraordinary grooves. This workshop will introduce you to countless rhythmic possibilities that will give your beats a whole new dimension. **by Maya C. Sternel**

Project info

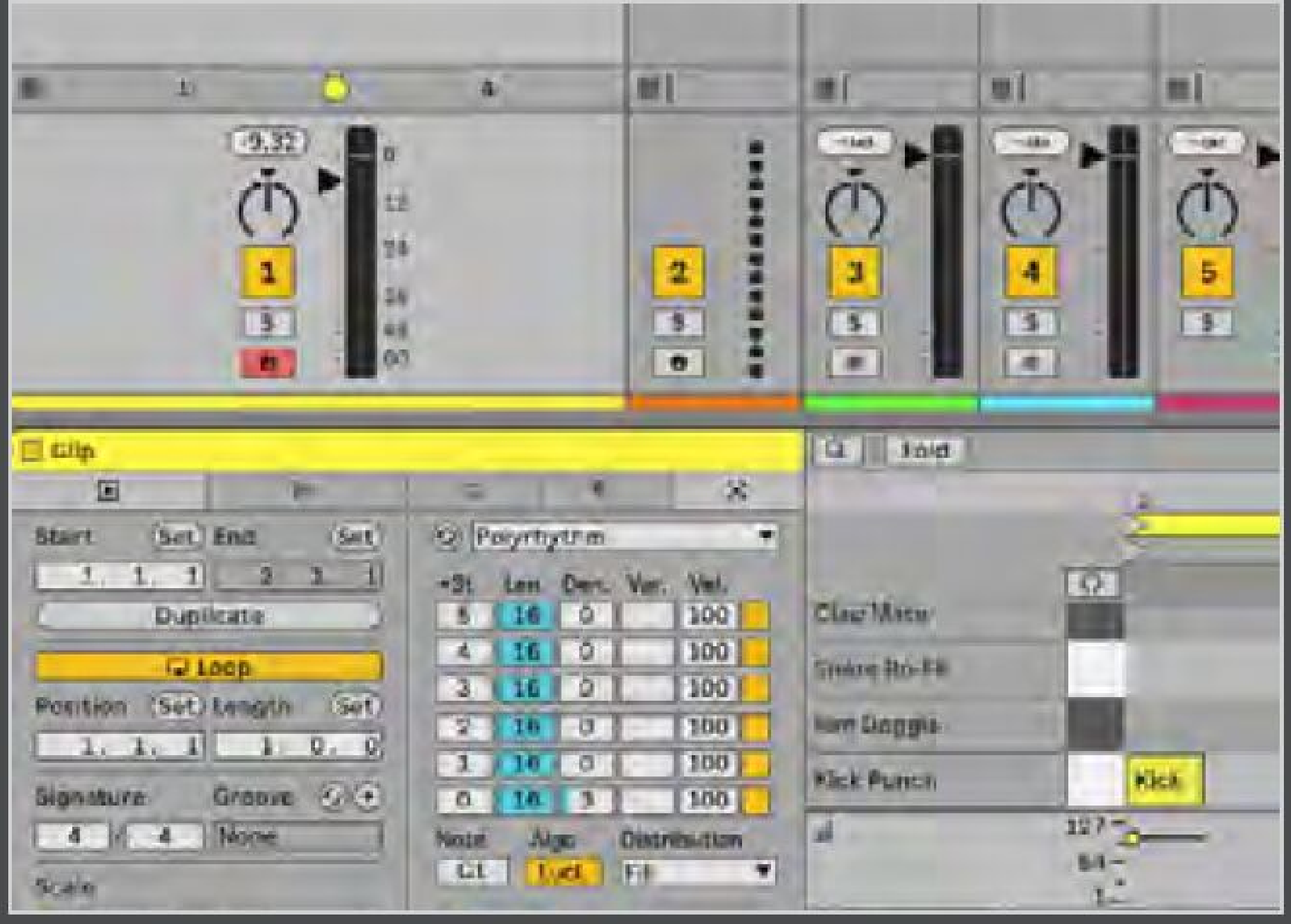
Material: Ableton Live 12.1
Time required: 30 minutes
Content: Create a lively-sounding Chorus Ensemble based on a single vocal sample, add scale-specific tones using Auto Shift, parameter settings and modulation options for a more natural vocal sound.
Difficulty: Advanced



Max for Live
MIDI Tools
von Philip Meyer
Entdecke spannende Möglichkeiten, um neue Patterns zu generieren und für das Bearbeiten vorhandener Sequenzen: mit einem Pack, das das ganze Potenzial der MIDI-Tools von Live 12 demonstriert.

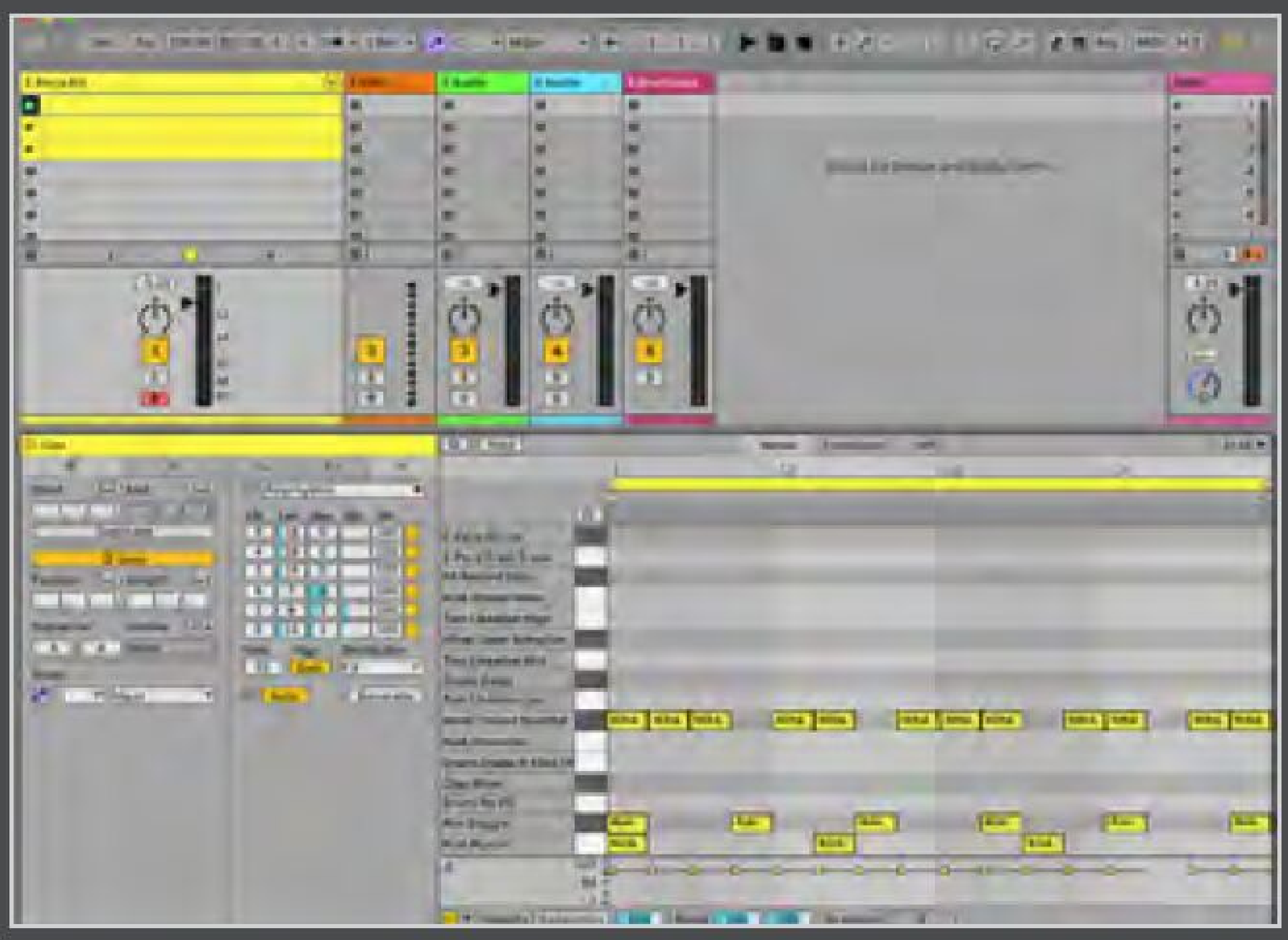
1 Load a drum rack

After installing the pack, select Polyrhythm in the MIDI Clip window under Generative Tools. Load a Drum Rack that also contains percussive sounds and create a MIDI Clip. In the Polyrhythm Editor you will see 6 parameter boxes. In the first, select the drum sound or the pitch **(+St)**. In the second, select the length of the pattern in 1/16ths **(Len)**.


Clip
Start
End
Duplicate
Loop
Position
Length
Signature
Groove
Scale
Polyrhythm
+St
Len.
Den.
Var.
Vel.
Note
Algo
Distribution
Fold
Kick

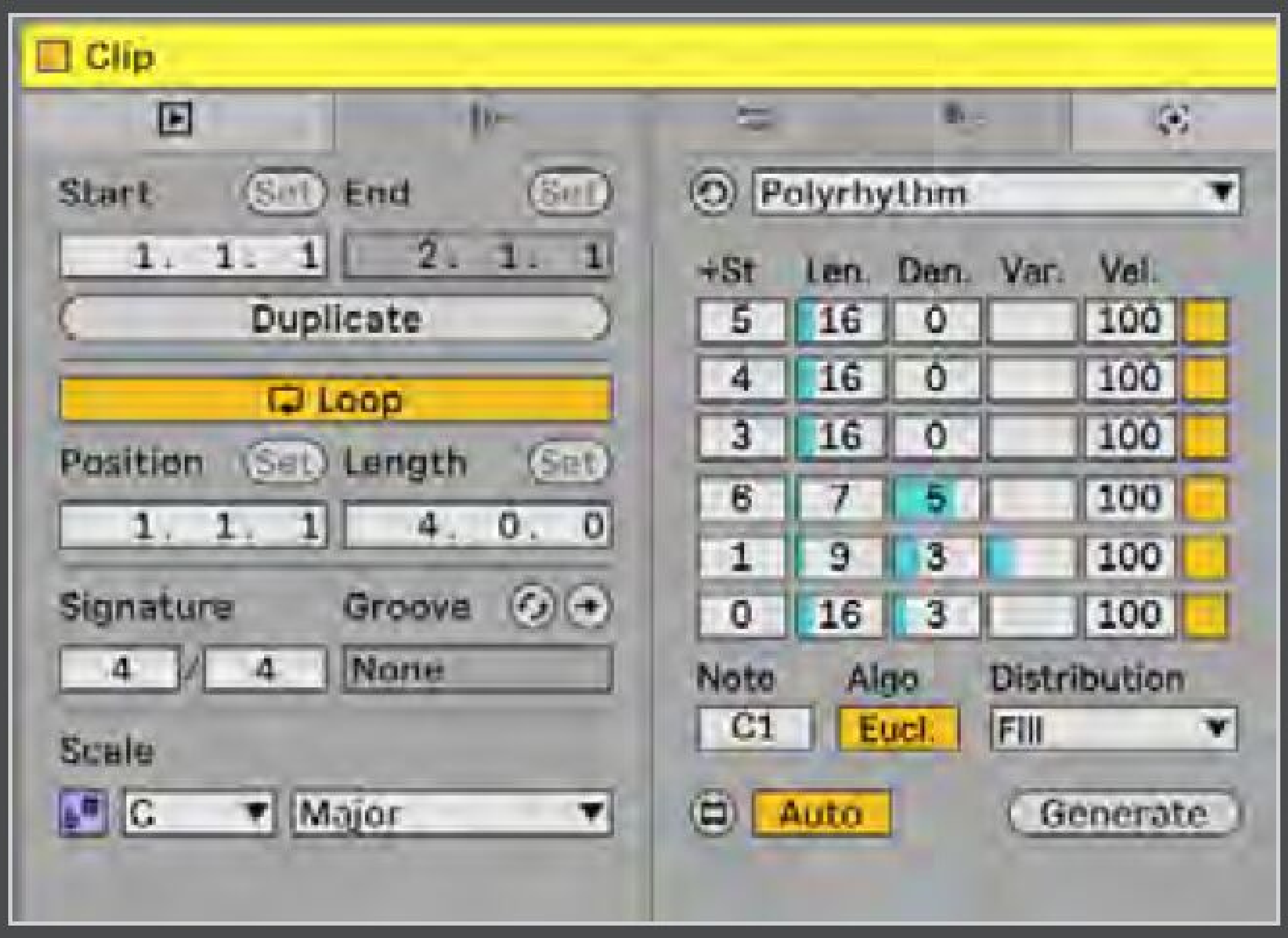
2 Set Beat parameters

Under Density **(Den)**, you determine the number of notes per run. In the fourth **(Var)**, you move the Pattern and in the last you set the Velocity **(Vel)**. Now create a beat by entering values. For example, set a Density of 3 for the first row. Start the clip and optionally adjust the value under +St so that the kick plays.



3 Define a pattern

Define a pattern for a different drum sound in the row above. Select 9 for **Length** and 3 for **Density**, which means that the pattern contains three notes and is **nine 1/16th** notes long. When the nine 1/16th notes are finished, the pattern starts again from the beginning. In the third row, set **Length** to 7, **Density** to 5 and select a Hi-Hat via **+St**.


Clip
Set
Duplicate
Loop
Set
Groove
Scale
Generate

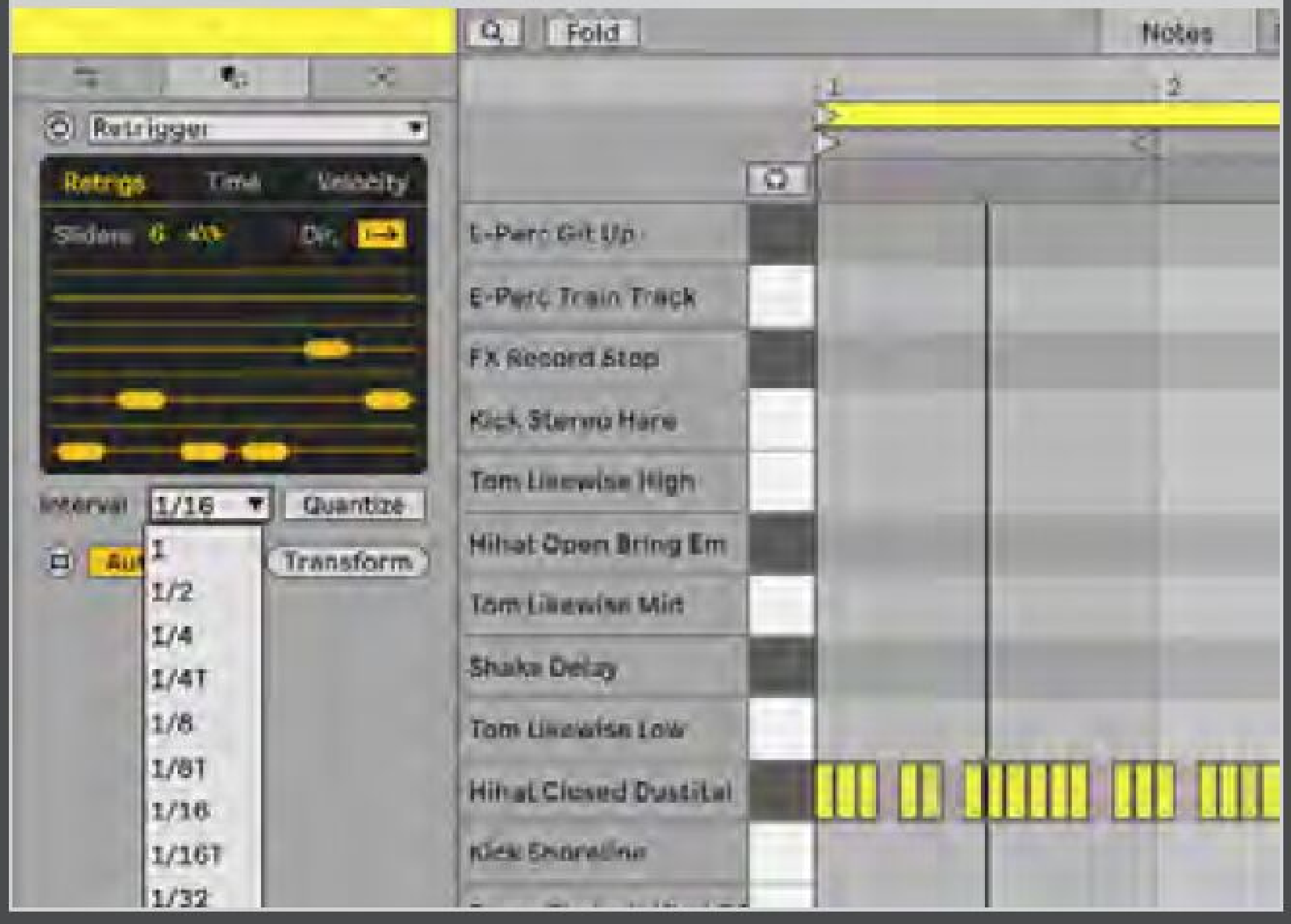
Start 1. 1. 1
End 2. 1. 1
Position 1. 1. 1
Length 4. 0. 0
Signature 4 / 4
Groove None
Scale C Major
Polyrhythm

+St	Len.	Den.	Var.	Vel.
5	16	0		100
4	16	0		100
3	16	0		100
6	7	5		100
1	9	3		100
0	16	3		100

Note C1
Algo Eucl.
Distribution Fill
Auto

4 Vary the rhythm

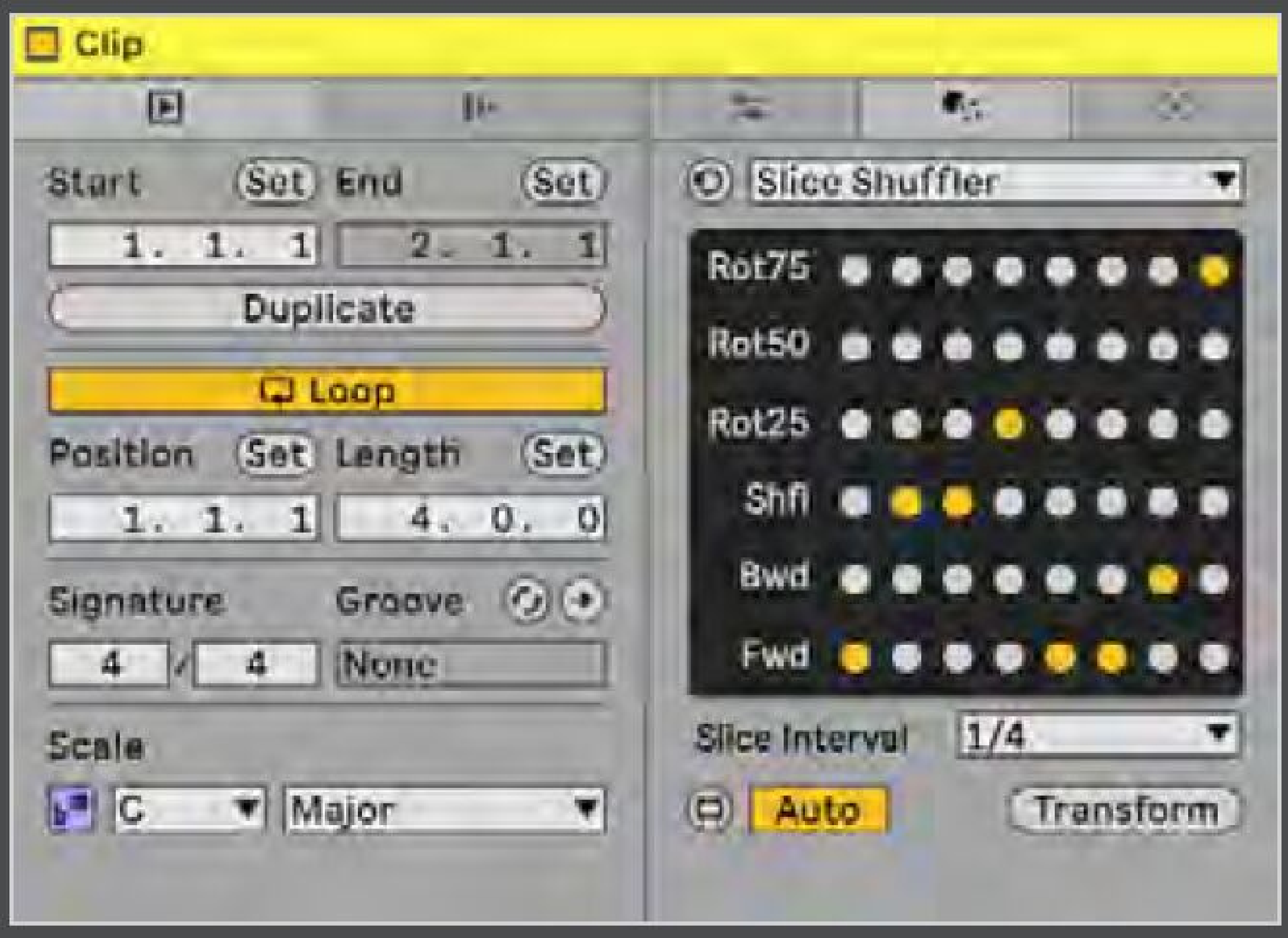
Experiment with different Length values to create complex and varied rhythms. As the patterns shift against each other due to their different lengths, extend the clip length to hear their development. To do this, set **Clip Length** to **4** and then click Generate once.


Fold
Notes
Retrigs
Time
Velocity
Dir.
Quantize
Transform
1
1/2
1/4
1/4T
1/8
1/8T
1/16
1/16T
1/32
E-Perc Git Up
E-Perc Train Track
FX Record Stop
Kick Stereo Here
Tom Likewise High
Hihat Open Bring Em
Tom Likewise Mid
Shake Delay
Tom Likewise Low
Hihat Closed Dustital
Kick Snareline

Retrigger
Sliders 6
Interval 1/16

5 Quick repetition

To repeat individual notes, select **Retrigger** from the drop-down menu under Transformation Tool. Create 6 sliders with which the notes are triggered differently. The 1st slider now triggers the first note and then every sixth note. The 2nd slider starts with the second and so on. Move the sliders a little to generate variations.


Clip
Set
Duplicate
Loop
Groove
Scale
Rot75
Rot50
Rot25
Shfl
Bwd
Fwd
Transform

Start 1. 1. 1
End 2. 1. 1
Position 1. 1. 1
Length 4. 0. 0
Signature 4 / 4
Groove None
Scale C Major
Slice Shuffler
Slice Interval 1/4
Auto

6 Change the groove

If you change **Interval** to 1/8, the intervals between the repeated notes change, creating a new groove. You can achieve exciting variations with the **Slice Shuffler** Transformer Tool: depending on your selection in the dot matrix, you can play the slices backwards, shuffle or rotate them based on the interval!

Presets and audio demos
in the magazine downloads
(see page 9)

Power Producer: Bitwig Studio

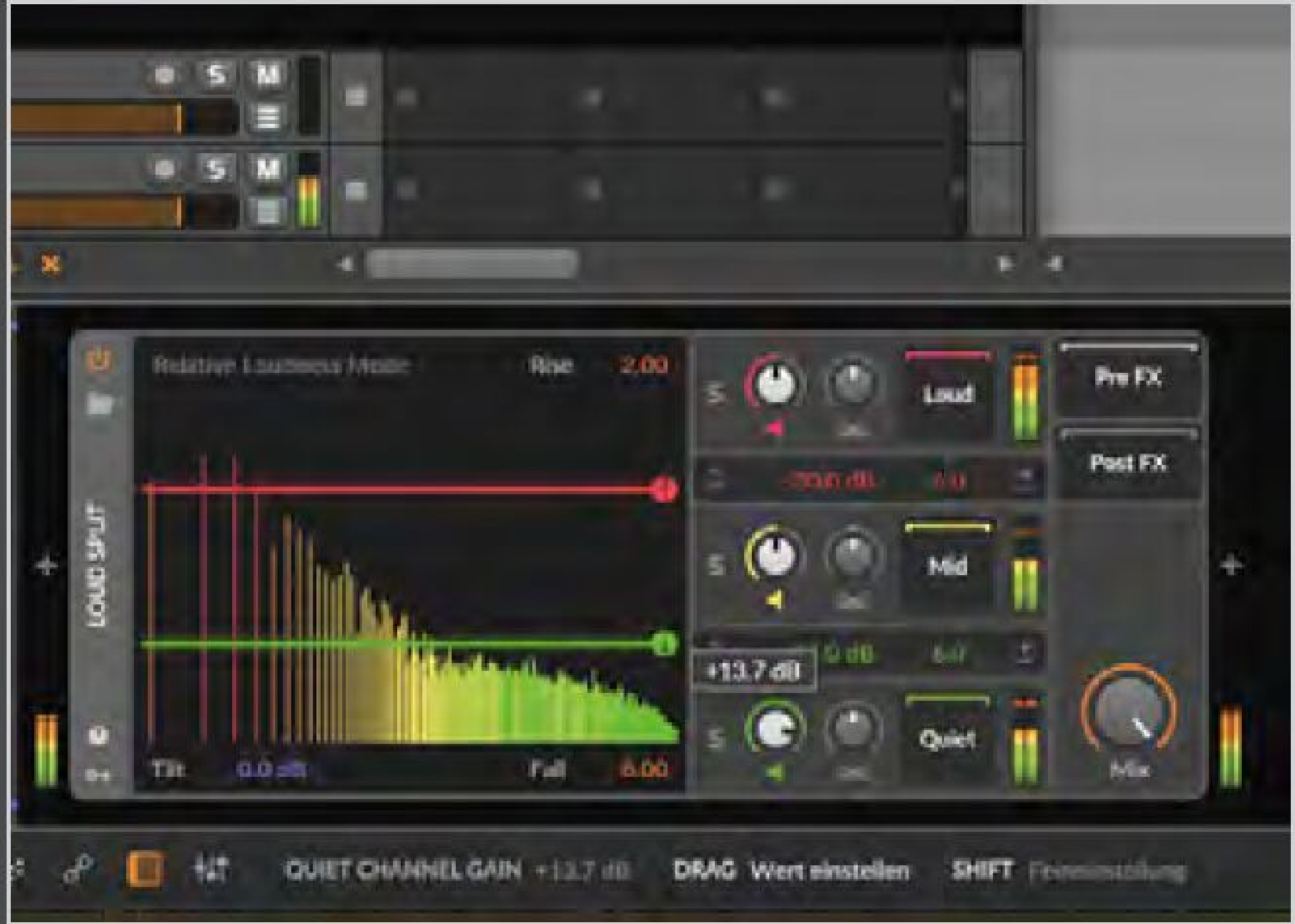
Better Mixes with Loud Split

After getting to know the Spectral FX in the last episode of the Power Producer: Bitwig, this time we take a closer look at the first of the four signal splitters: Loud Split. Spectrally, each signal can be split into three volume ranges. On the one hand, this allows lightning-fast Gated Reverb effects; on the other hand, Loud Split is a powerful mixing tool that works more cleanly and is more versatile than the most expensive compressor. **by Laura Emiliano**

Project info

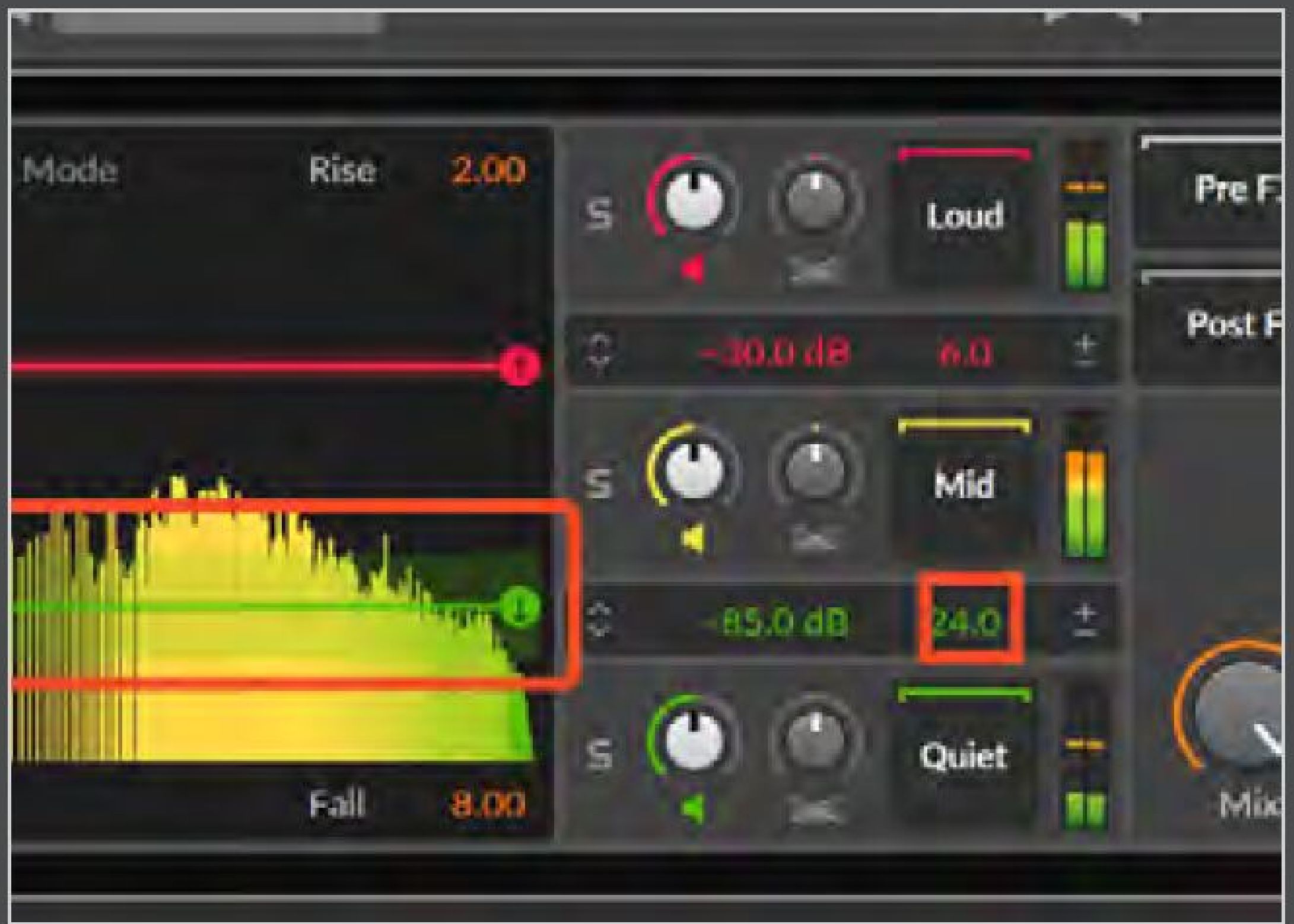
Material: Bitwig Studio 4.4 and later
Time required: 30-60 minutes
Content: Compress better with Loud Split.
Difficulty: Advanced to Pro

Audio Demo


Relative Loudness Mode
Rise 2.00
Loud
Pre FX
Post FX
Mid
+13.7 dB
Quiet
Mix
Tilt 0.0 dB
Fall 8.00
LOUD SPLIT
QUIET CHANNEL GAIN +13.7 dB DRAG Wert einstellen SHIFT Feineinstellung

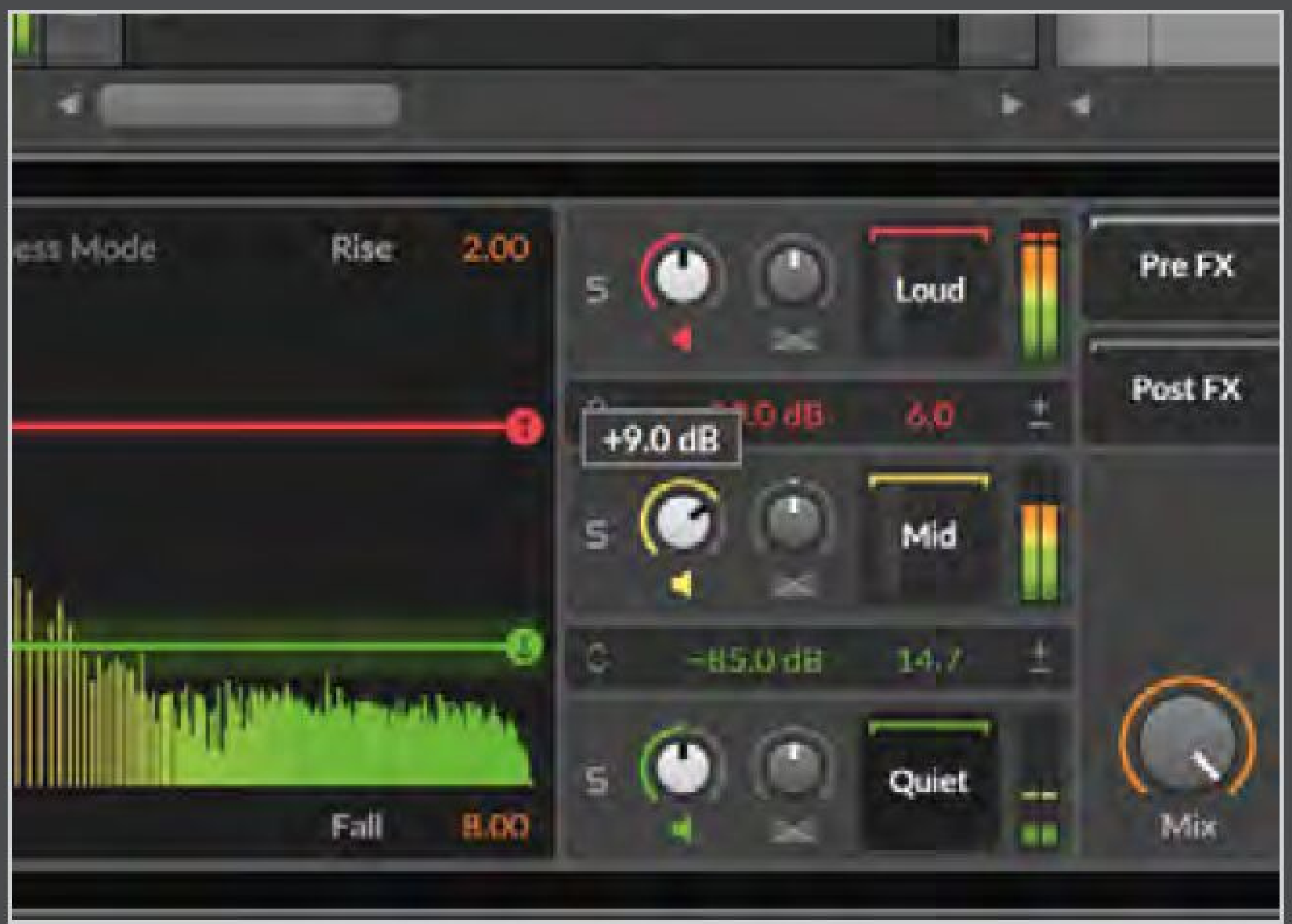
1 In the green zone

The first difference to a compressor: Loud Split divides the signal into three volume ranges - loud, medium, quiet - not just two (above and below the threshold). The upper and lower threshold levels can be set, as can the Volume of each range. If you turn up the volume in the quiet range, Loud Split almost becomes a compressor!


Mode
Rise 2.00
Loud
Pre FX
Post FX
-30.0 dB
6.0
Mid
-85.0 dB
24.0
Quiet
Fall 8.00
Mix

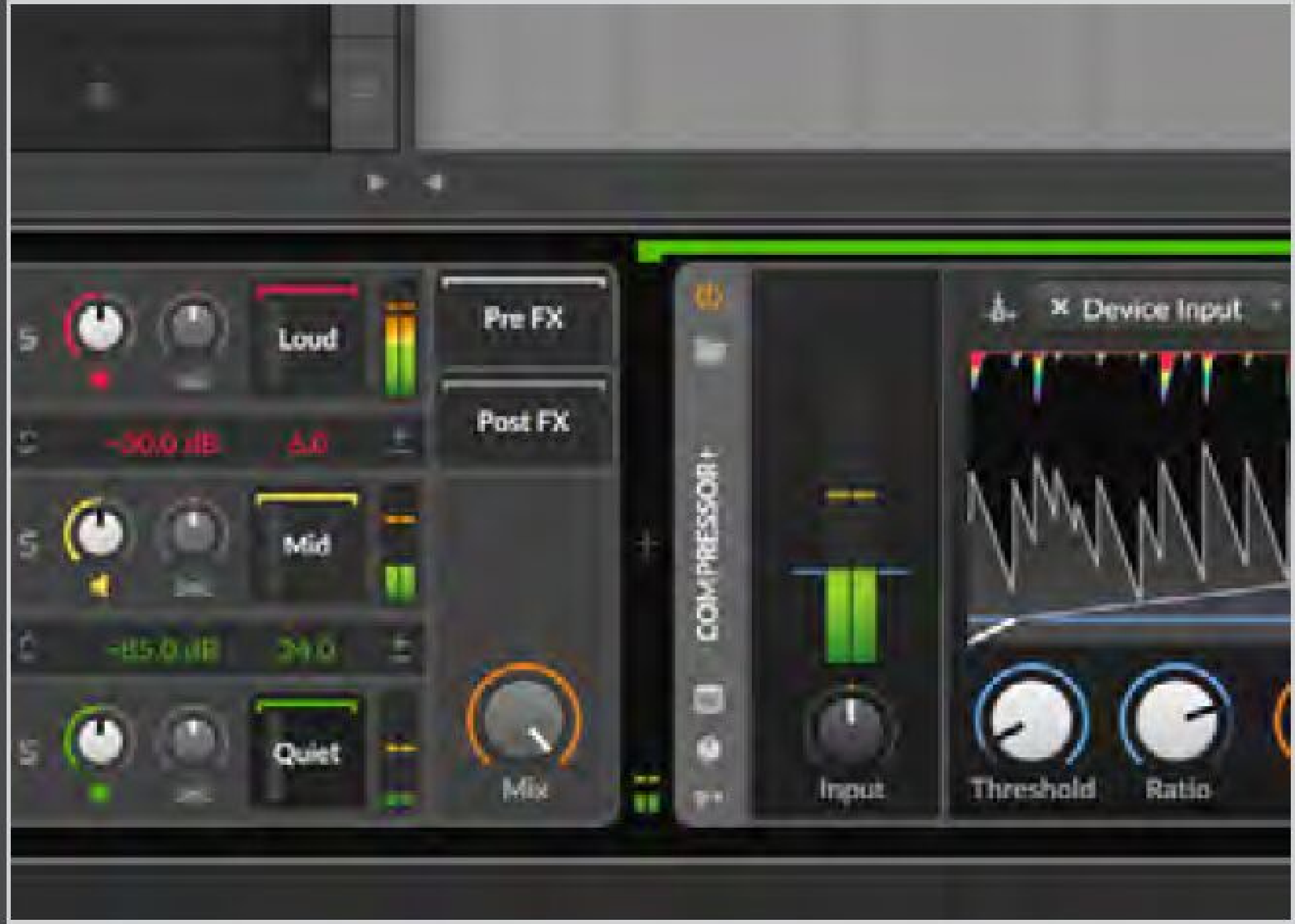
2 Hard or Soft Knee

There is also a Knee parameter for each of the two level transitions. This determines how "strict" the threshold is, that is, whether there is a certain fade between two ranges; and signal components are not abruptly catapulted from one range into the other. The Rise and Fall parameters are similar to the attack and release of a compressor.


Mode
Rise 2.00
Loud
Pre FX
Post FX
+9.0 dB
6.0
Mid
-85.0 dB
14.7
Quiet
Fall 8.00
Mix

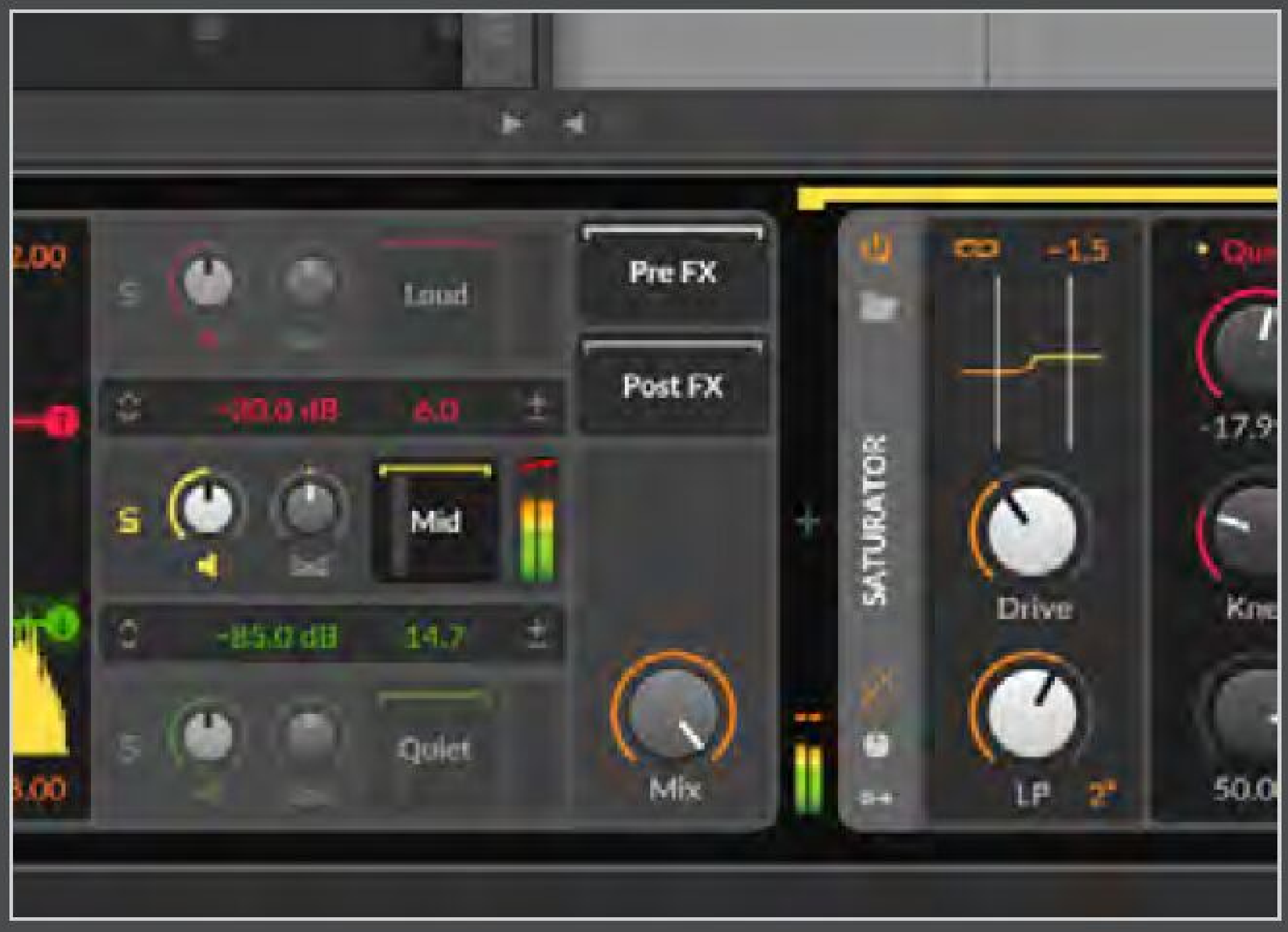
3 Loud, Medium, Quiet

Without any effects, Loud Split can serve as an extremely clean and fast compressor. Instead of analog warmth like the 1176 or LA-2A, it's all about reducing the dynamics. If you simply increase the output level of the quiet range, this is exactly what happens without the slightest compressor pumping!


Loud
Pre FX
Post FX
Mid
-85.0 dB
24.0
Quiet
Mix
COMPRESSOR+
Device Input
Input
Threshold
Ratio

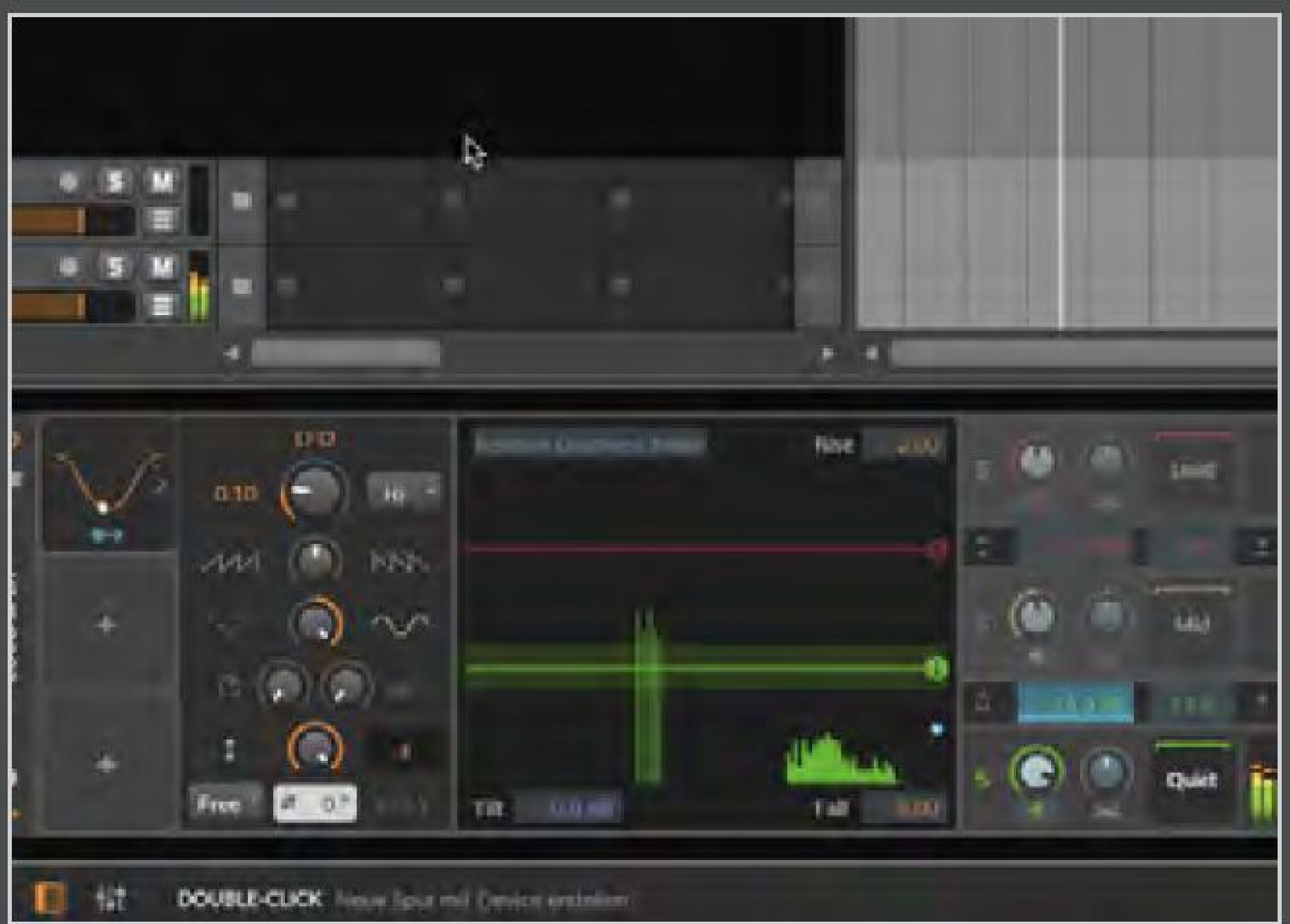
4 Multi-level

But now let's take it up a notch and load Compressor+. Not just behind Loud Split, but in each of the three volume ranges. This gives you extremely precise access to the dynamics of each range, allowing you, for example, to compress the quiet signal components more and the mid-range components less - so the signal "breathes" better.


Loud
Pre FX
Post FX
Mid
-85.0 dB
14.7
Quiet
Mix
SATURATOR
-1.5
Drive
LP
-17.9
50.0

5 Quiet heat

You can go one step further with Loud Split if you use the volume split to warm up more specifically. This allows you to process the quiet signal components more strongly with the Saturator than the loud ones. Without Loud Split, this would result in the transients and peaks being distorted much more than the quiet signal components.


LFO
Rise
Loud
Mid
Quiet
Free
Fall
DOUBLE-CLICK

6 Sound design

Even if the focus of this episode is on mixing, it goes without saying that crazy sound design is also possible with Loud Split. Simply placing the effect on a complex pad sound and only letting the quiet signal components through or modulating the level limits with an LFO creates sounds that make Ambient and Techno hearts beat faster.

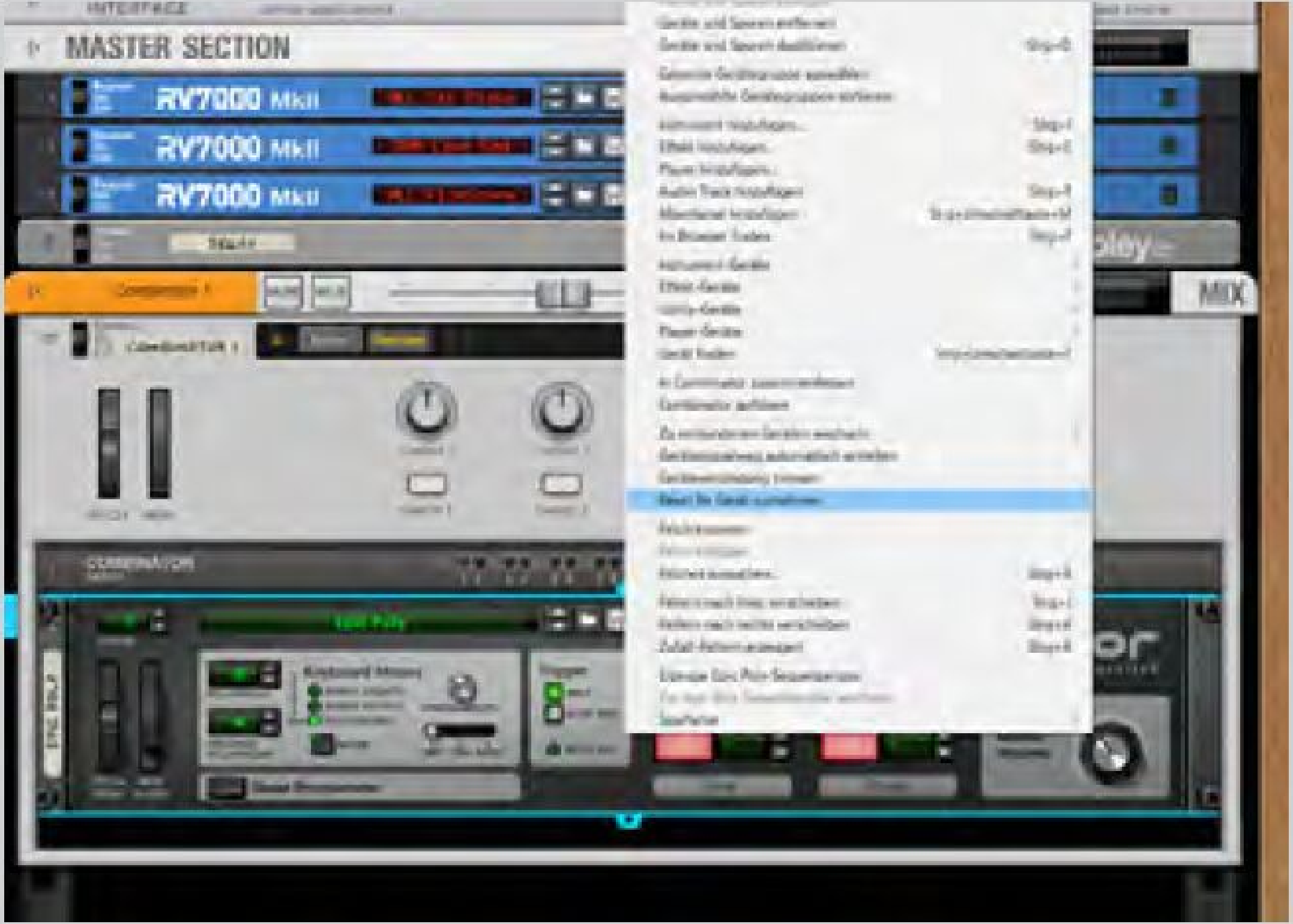
Power Producer: Reason

Modulate filter type, not cutoff

If there‘s one thing that makes sounds interesting, it‘s a change on the time axis. This makes a lot of sense, especially with flat sounds. In Reason there are some hidden possibilities to create cool sounds with the help of modulations. One of these possibilities is to change the filter types of Thor during operation. **by Maveric**

Project info

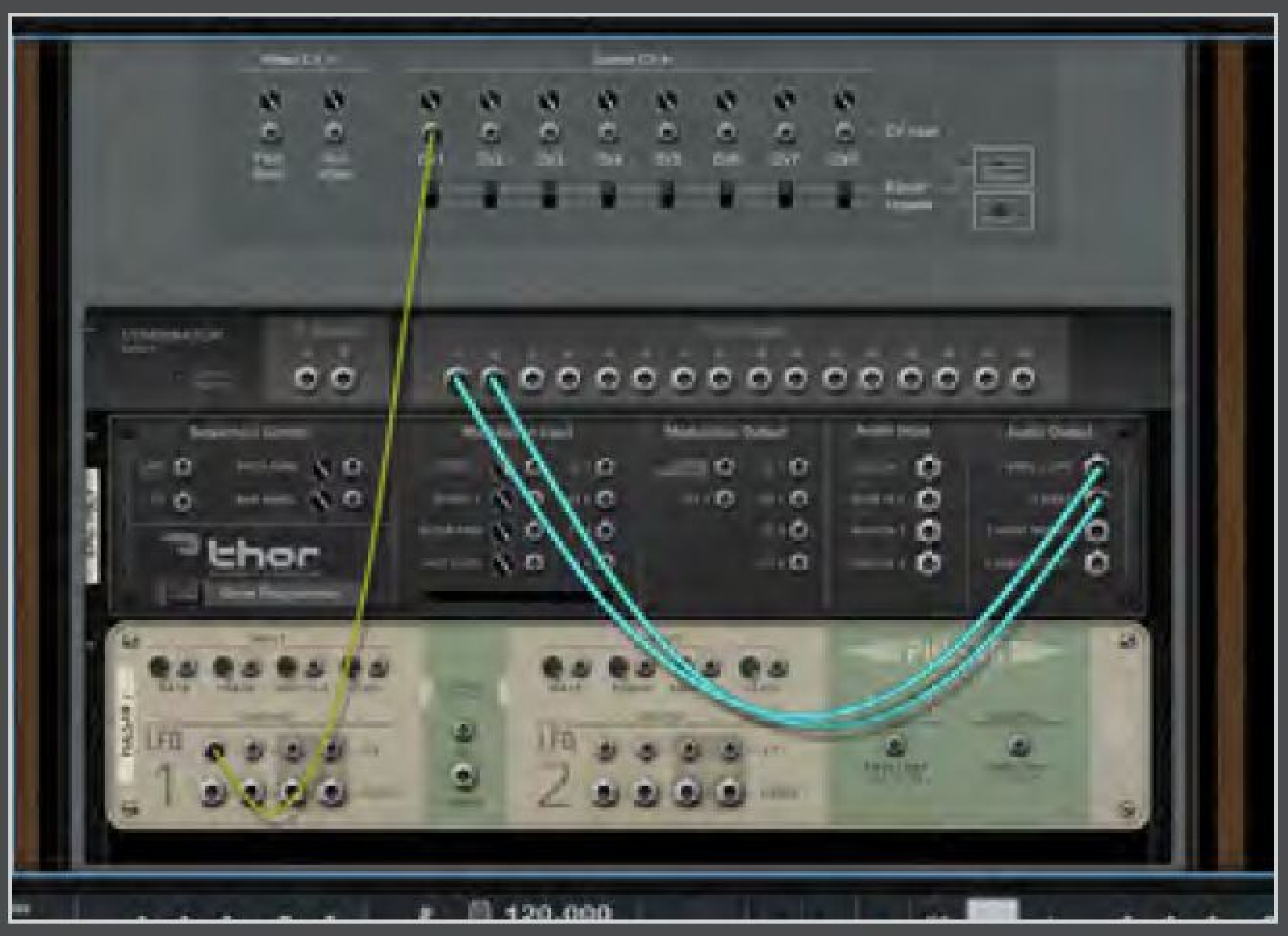
Material: Reason 13
Time required: 10 - 15 minutes
Content: Create a modulation that changes the Filter types in Thor while a sound is playing.
Difficulty: Advanced



1

Combinator preparation

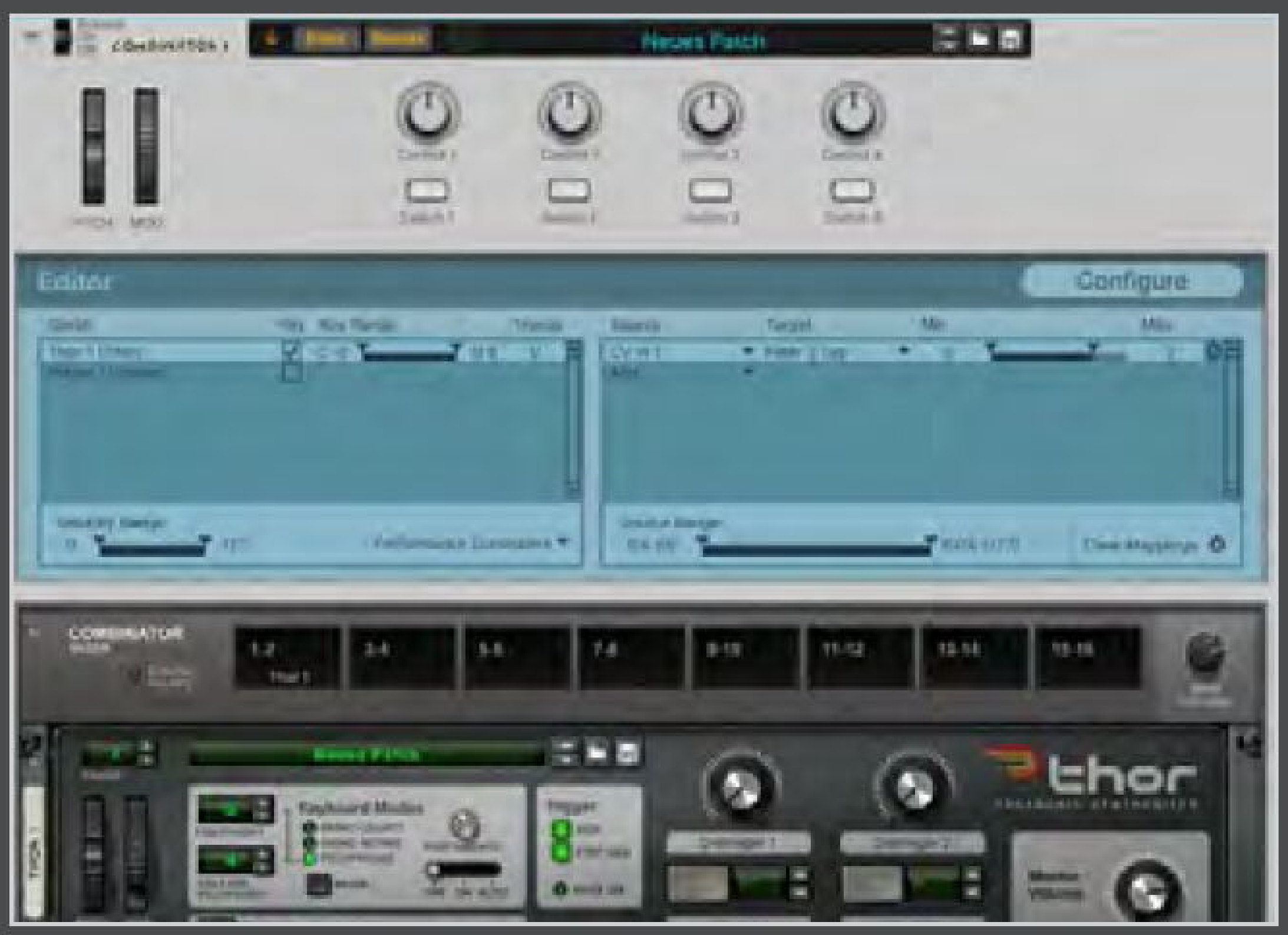
A Combinator has the immense advantage that it makes modulation visible to us. In addition, each Combinator is another tool on our Reason pocket knife that we can fold out at any time. In this scenario, the first thing we do is drag a Combinator into the rack and equip it with a Thor, which we initialize.



2

Modulation source

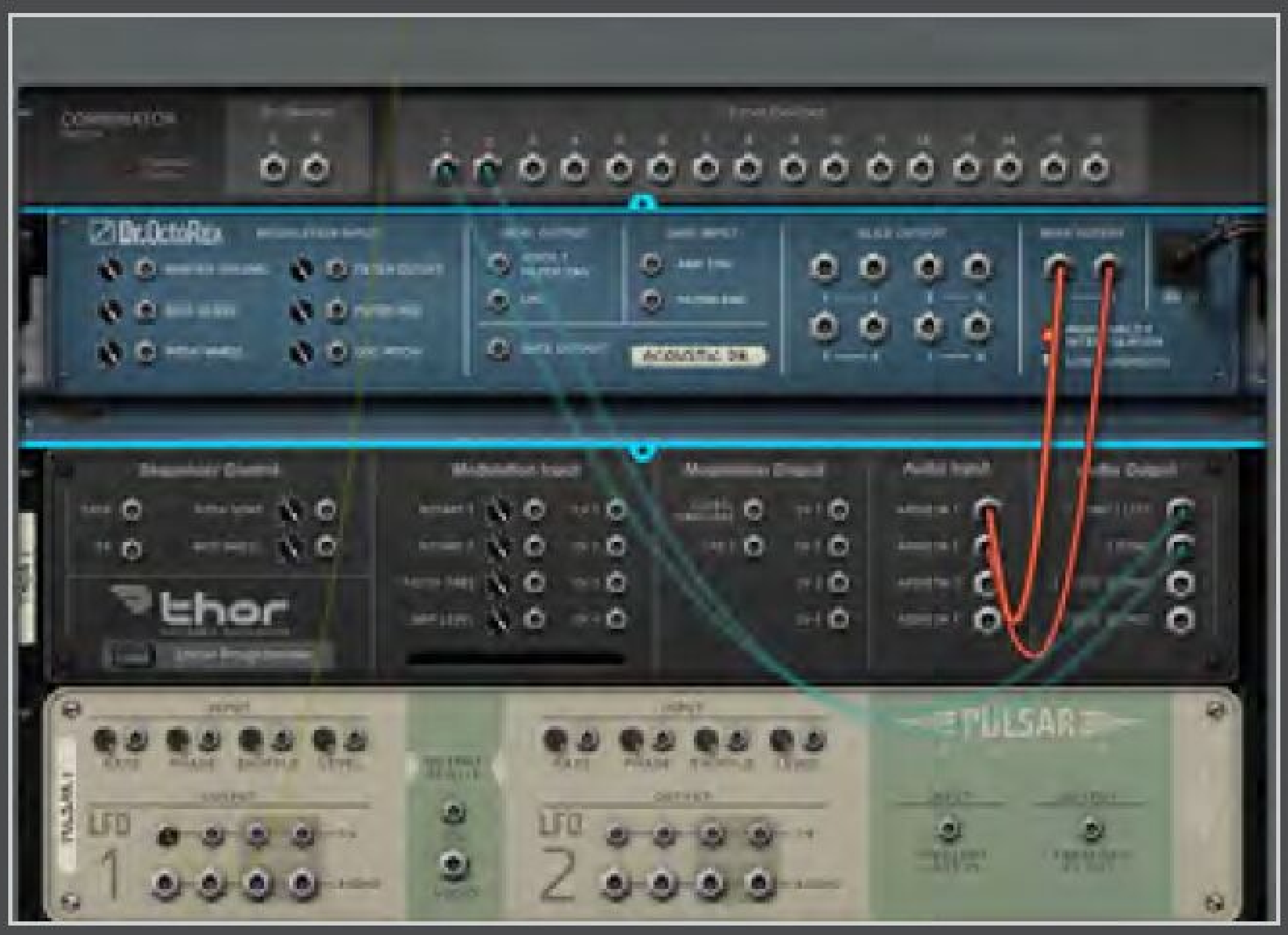
We also add a Pulsar Dual LFO, which we use to change the Filter types. On the back, we now connect Thor‘s audio outputs to the Combinator‘s inputs. We connect our **LFO 1** to **CV 1** of the Thor. Now we turn our attention to the Combinator‘s modulation matrix to define the path and intensity of the modulation.



3

Create the routing

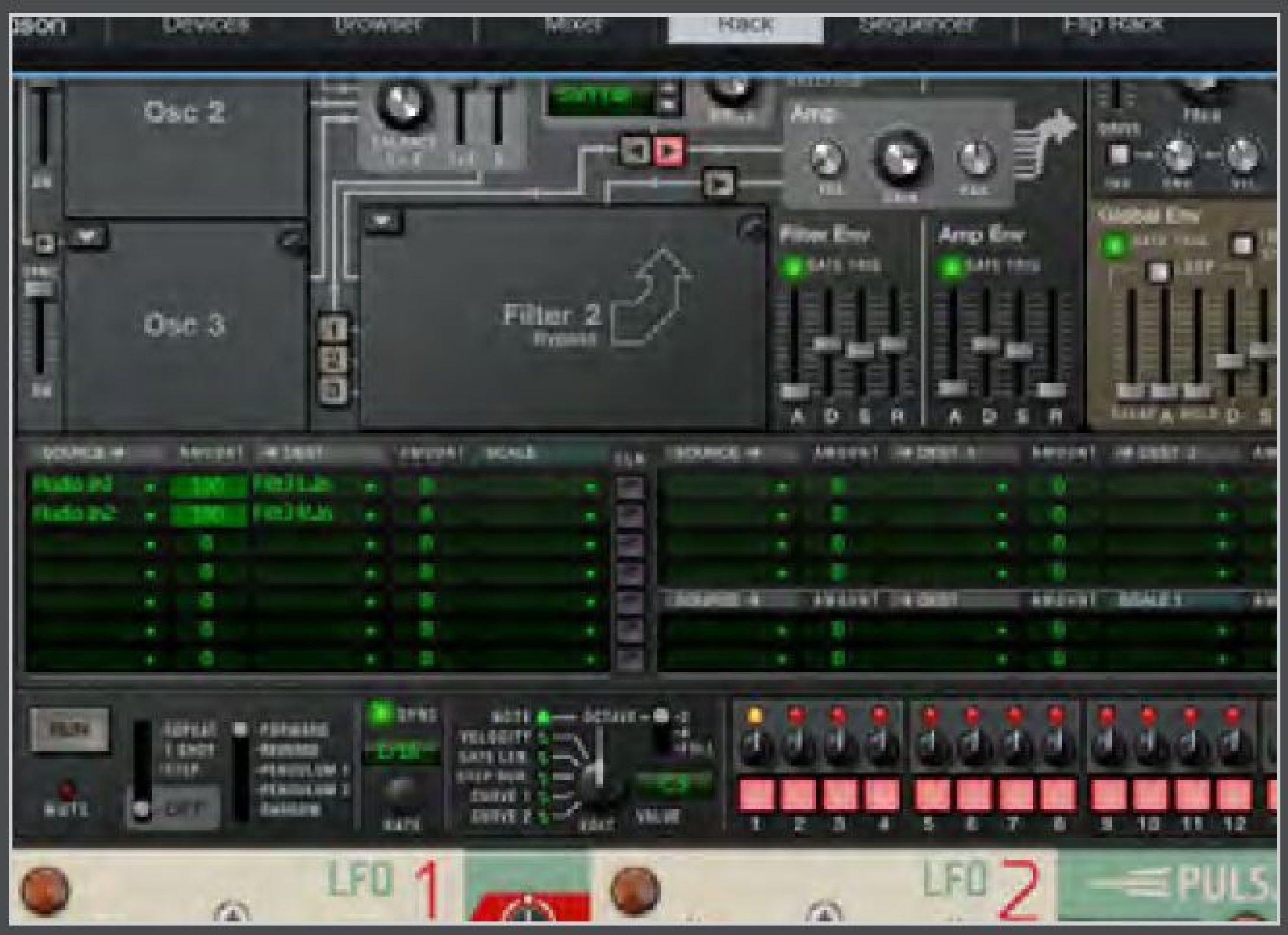
Select Thor on the left under device and set **Filter Type 3** as the target on the right, that is, the global filter unit. The source is **CV In 1**, as we are about to feed Thor an external audio signal. As Thor has four filter types and a bypass, we set the max value to three. This prevents our effect from switching off in between.



4

Connect instrument

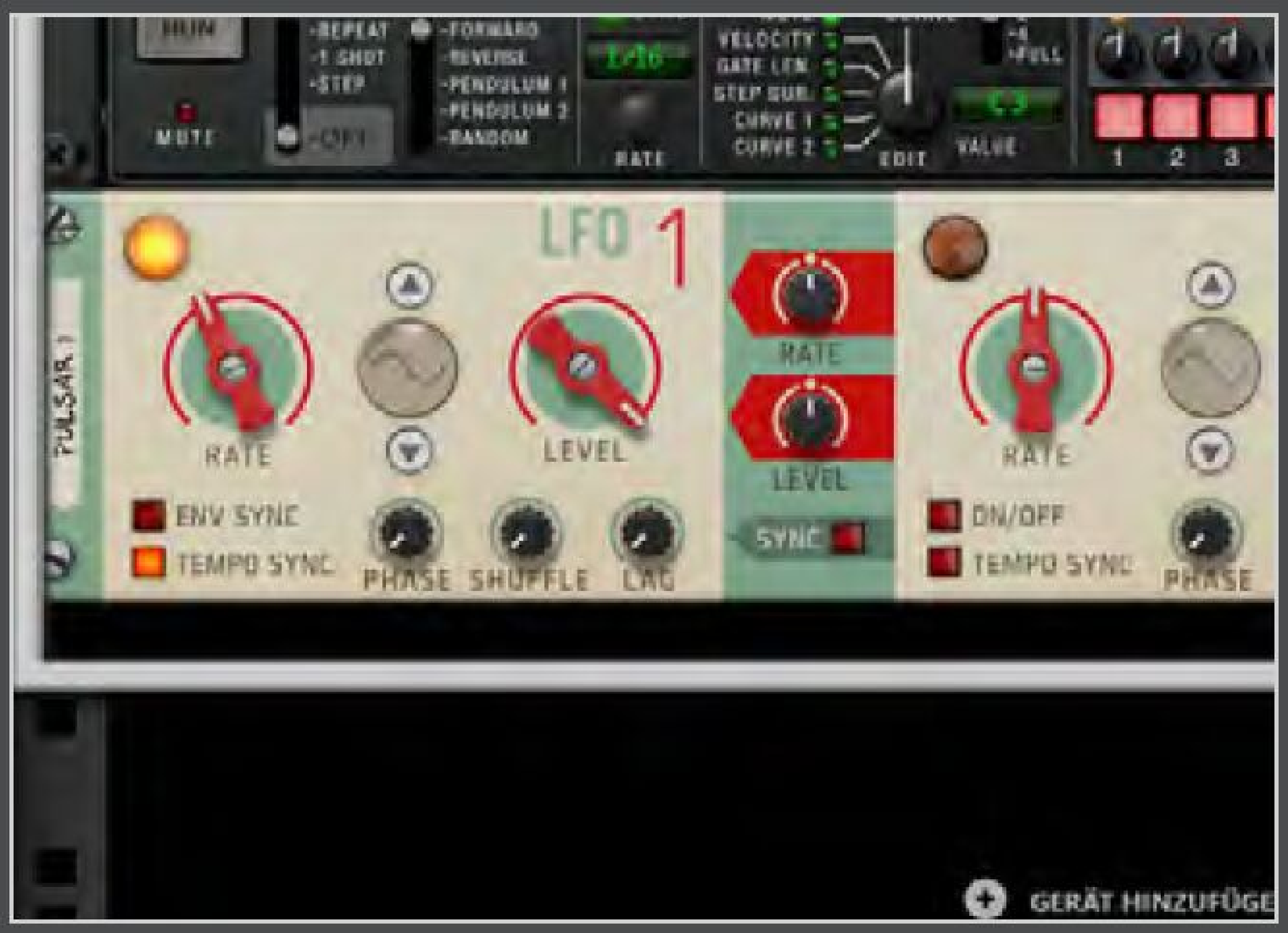
Now Thor gets an audio source. To get a quick result, we once again use the Dr. Rex Player. We drag it into the rack by holding down the **Shift** key and connect its **Audio Output** to Thor‘s **Audio Input**. In this example, we are now finished with the cable work. Let‘s take care of the settings.



5

Enter the matrix

Make Dr. Octo Rex audible by routing the audio signal to **Filter 3** in the Thor‘s Modulation Matrix. For Source, select **Audio In 1 and 2** and set **Amount** to **100**. These will then be sent to the left and right inputs of Filter 3. Now the incoming signal from the Octo Rex can be provided with all the effects from the global section.



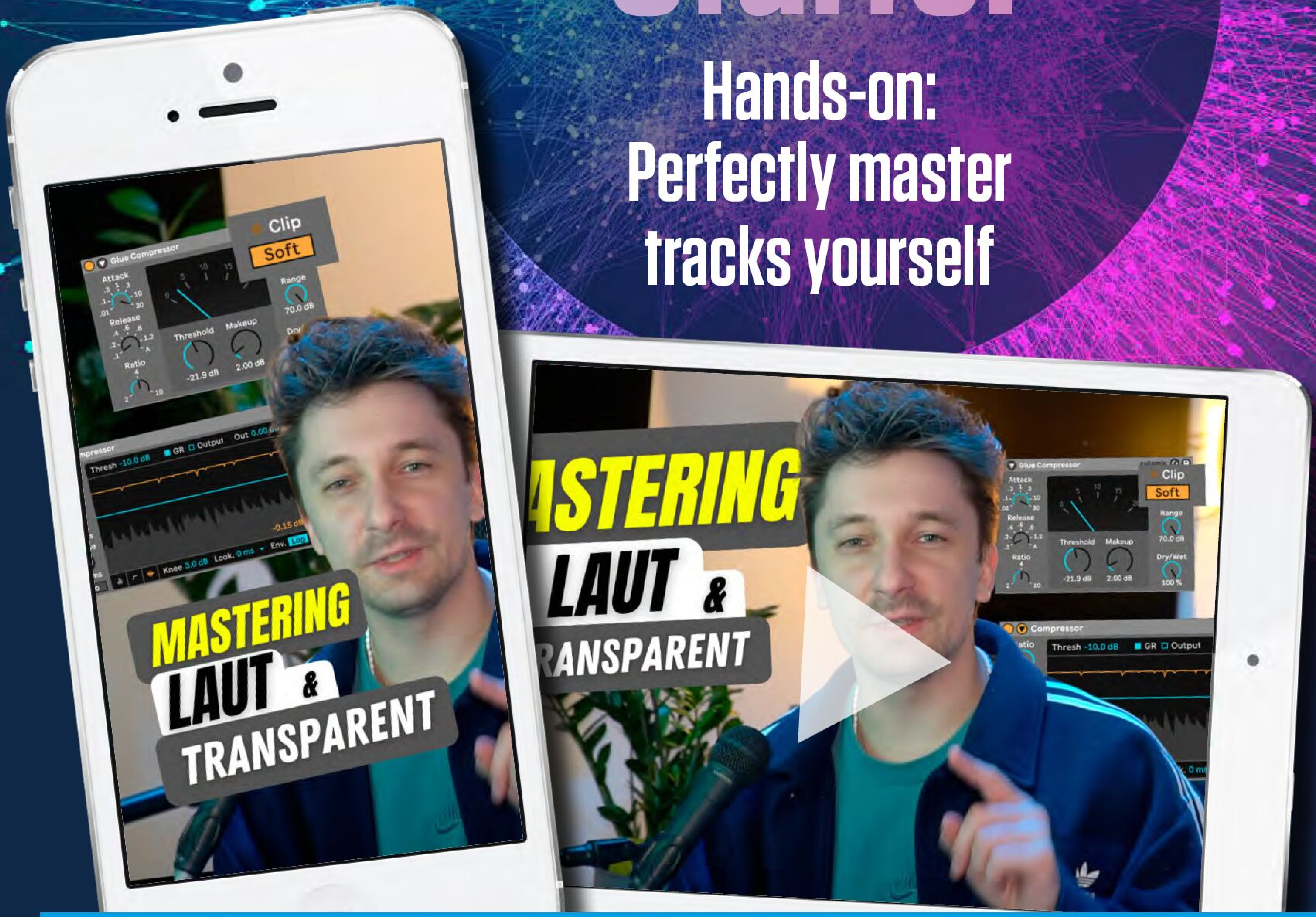
6

Fine tuning

Our LFO now changes through the filter types. For an intensive filter change, the level of the LFO should be turned up considerably. The **Rate** and **Waveform** influence the sound. Furthermore, each filter type can be set individually. For example, we switch between **LP/HP Filters** in combination with the **Fomant Filter**.

Song Starter

Hands-on: Perfectly master tracks yourself



Take a look at YouTube and get inspired

www.youtube.com/
@BeatMagazin

Unfortunately, your muse isn‘t available at the touch of a button – but inspiration is! From now on, in cooperation with the EMS - Electronic Music School, we will be providing you with fresh song ideas, track templates, samples and MIDI files every month as a creative injection that will surely give you new ideas. This will inject a breath of fresh air into your routine or take you down completely new musical paths. Whether you‘re a fresh Beatmaker or an experienced Soundsmith, you‘ll find what you‘re looking for here! **by Jeyênne**

Nobody can avoid professional Mastering. Even if the label takes over this part later, tracks have to be impressive when they are sent in - and that will be difficult if they don‘t sound good.

This is where Adrian from EMS steps in for you and not only introduces you to his Mastering Chain, but also explains what really counts in Mastering, how the plug-ins are set up for the ideal sound and why they‘re used where they’re used. You can download the chain from the issue data and use it or build your own.

www.em-school.com

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- Adjustable record out

L&R ON
LEDs
CH I
AUX
VU
+9
+3
0
-3
-6
-12
-21
dB
L
CUE
R
MID
HIGH
OUT
MAIN
GAIN

Test: GForce Bass Station

The Bass Station was not only Novation‘s first synthesizer in 1993, but also heralded a new wave of analog synths. With the help of the software modeling experts from GForce, the British company‘s debut synthesizer celebrates a virtual resurrection - equipped with many new functions! **by Jan Wilking**

Features

- Software instrument
- Based on the Novation Bass Station
- Up to 16 voices
- X-Modifiers per parameter
- 16-step sequencer
- Over 300 presets
- Fully scalable GUI
- Standalone, AU, VST2, VST3, AAX
- From Windows 7, macOS 10.13

Facts

Developer: GForce
Web: gforcesoftware.com
Distribution: Website
Price: 65 Euro

▲ Sound character of the original
▲ Polyphonic
▲ Stereo unison
▲ LFO/Env for each parameter
▲ Step sequencer
▲ Simple operation
▲ Macro control

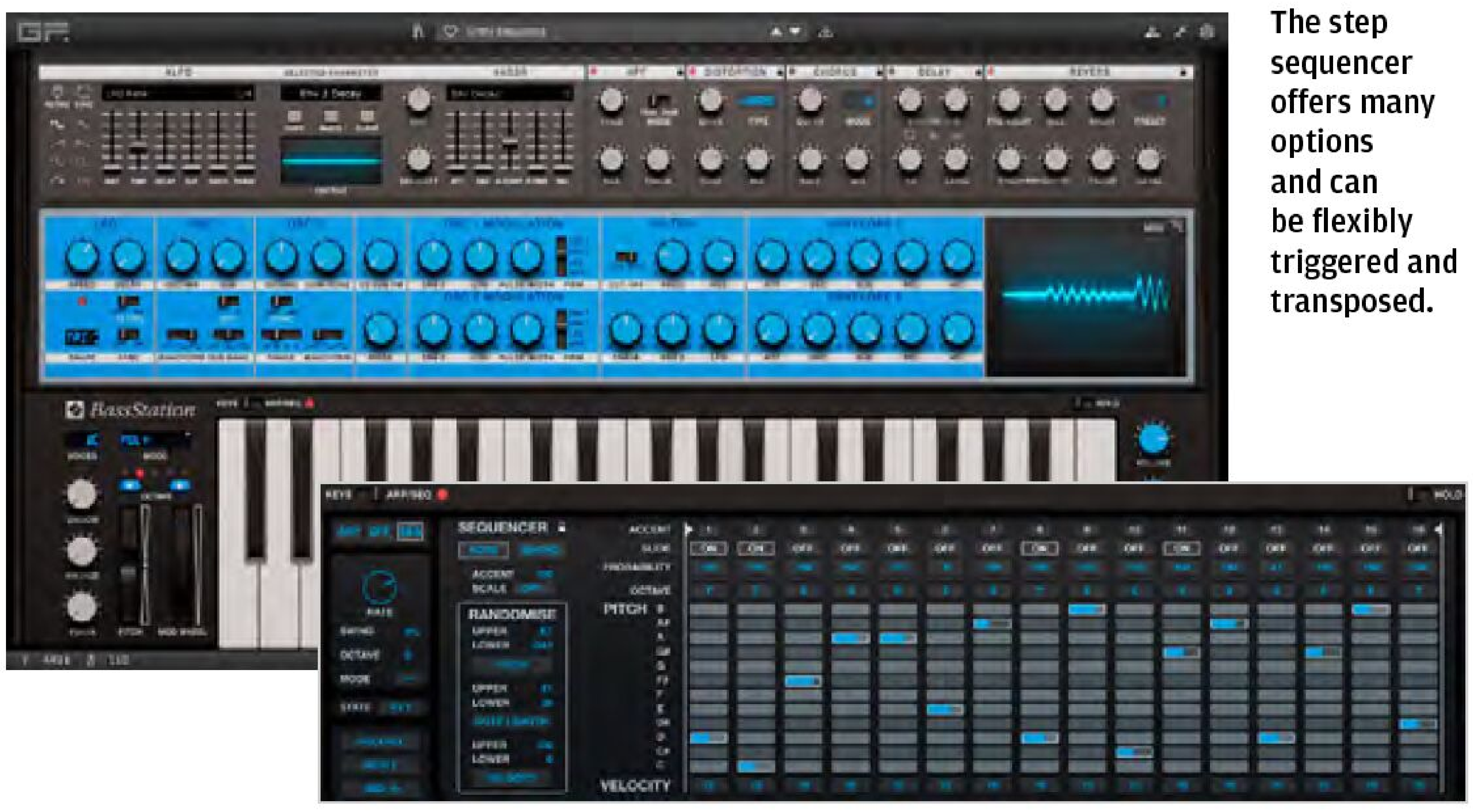
Sound:	■■■■■□
Operation:	■■■■■◧
Price/Perf:	■■■■■□
Total:	■■■■■◧

Alternatives

TAL BassLine-101
65 Euro
tal-software.com

Softube Model 82
99 Euro
softube.se

D16 Group Lush2
169 Euro
d16.pl



The step sequencer offers many options and can be flexibly triggered and transposed.

After analog synthesizers were replaced by digital innovations such as the DX7 in the mid-1980s and traded at ridiculously low prices, creative musicians took advantage of this and bought TB-303, SH-101 and the like second-hand and used them to create new music styles such as Techno and House. At the height of the new wave, these instruments were rare and expensive. The young company Novation was one of the first to discover this gap in the market and launched the Bass Station, a compact little analog synthesizer that was specially designed for bass lines and was relatively inexpensive. This is how the Bass Station became a small bestseller.

303 Alternative with Wasp Genes

With Chris Huggett, the inventor of the legendary Wasp synthesizer, Novation had also found the right developer; he was subsequently involved in almost all other Novation synthesizers including Supernova, BS2 and Peak/Summit. And its influence can also be heard. The lowpass filter, which can be switched between 12 dB and 24 dB, should, of course, sound like the characteristic filter of the TB-303, but it also has unmistakable Wasp genes. In combination with the two digitally controlled analog oscillators (DCO), this resulted in a very characteristic sound which, with a rather mid-range sound and a certain LoFi charm, clearly stood out from classic analog bass and lead synthesizers such as the Minimoog. In our opinion, this special sound character has been excellently captured in this software version.

X-Modifiers

However, GForce does not stop at the features of the original, but also offers the X-Modifiers, which are familiar from other French synthesizers such as the MiniMonsta. Almost every parameter of the synthesizer can be modulated with its own envelope and LFO! This significantly expands the sonic possibilities and enables lively and constantly changing sounds that one would not have expected from this rather simple synthesizer.

Up to 16 voices

In contrast to the original, this virtual Bass Station can also be played with up to 16 polyphonic voices. The voices can also be distributed in the stereo panorama, detuned from each other and layered to create fat Unison sounds. And a continuously adjustable vintage parameter provides random fluctuations of various parameters for a more “analog” sound. Finally, there are Highpass Filters, Distortion, Delay and Reverb to refine or distort the overall sound. A clearly laid out browser with lots of good presets provides additional inspiration.

Flexible step sequenzer

Another highlight is hidden behind the virtual keyboard. In addition to an Arpeggiator, the Bass Station also offers a fully-fledged step sequencer with some interesting functions. Pitch and velocity for up to 16 steps can either be drawn in using a small piano roll or played in step-by-step using the keyboard. In addition to accents and slides, you can set the probability with which each step is triggered - so you get a new variation with every run. Alternatively, the Bass Station can create random sequences at the touch of a button, even with a selectable Key and adjustable Octave Range. In addition, the functions of the arpeggiator, such as different playback directions, swing and speed/divider, are also available for the sequencer.

Verdict

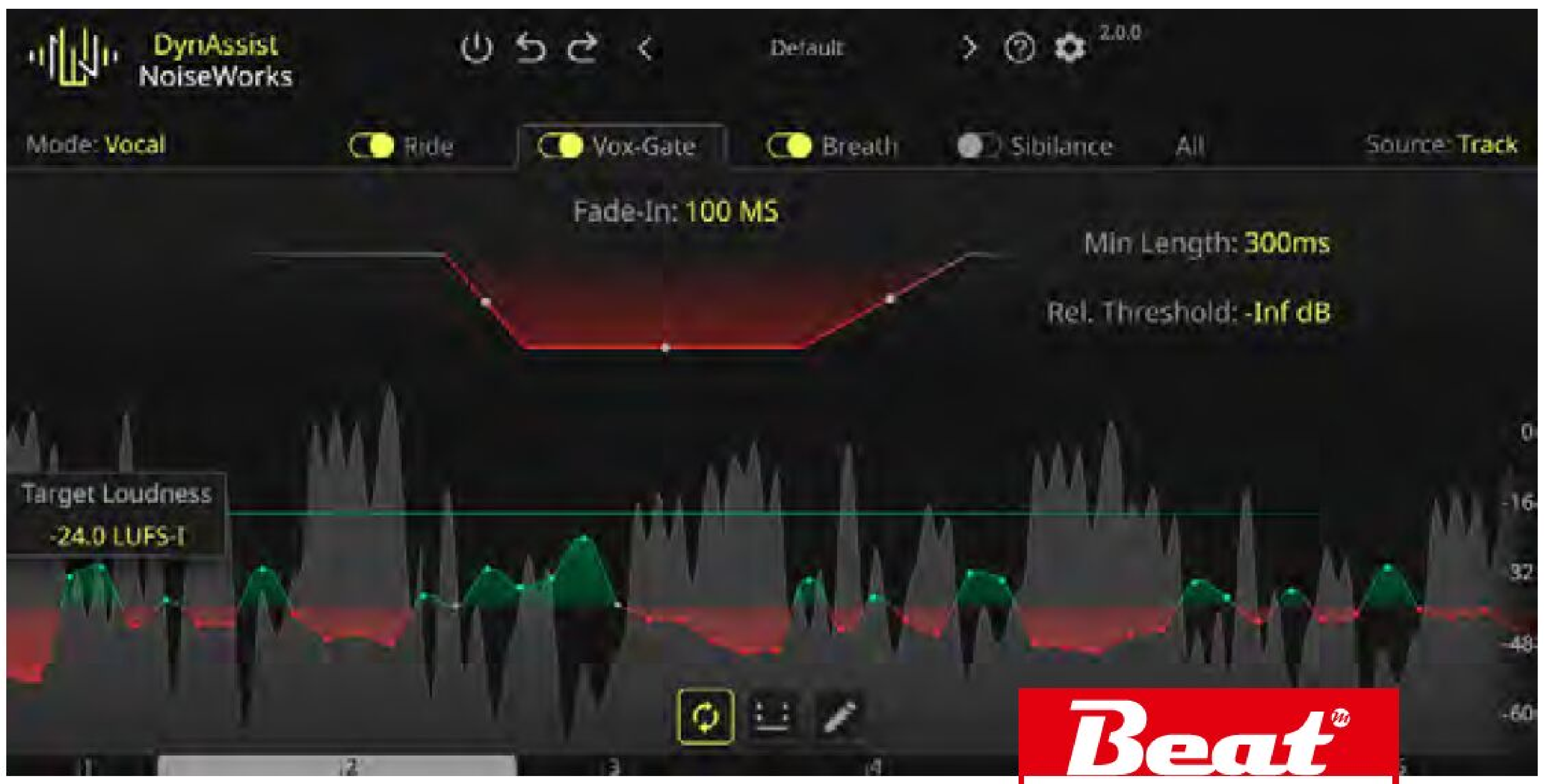
Bass Station offers the convincing character sound and the simple, but effective sound generation of the legendary bass from the 70s. With the clear sound generation, you can quickly create typical leads, arpeggios and basses with a certain LoFi charm; but thanks to up to 16 voices being available, wide Unison sounds and pads are also no problem. The complex modulation possibilities of the X-Modifier also allow for more wacky and experimental sounds, while the intuitive step sequencer ensures movement and the ability to create complex sequences. The price of 65 Euro seems more than fair for what is on offer, and buyers of selected Novation keyboards even get the plug-in for free. ⁘

More Info

Test: Noiseworks DynAssist

If you work a lot with vocals, you will certainly have heard of GainAssist. This tool helps to bring voice recordings and vocals to a uniform volume. DynAssist can also do this, as well as de-essing, gating and suppressing or removing distracting breathers. Is this the perfect all-rounder tool for vocals?

by Marco Scherer



Mode: Vocal
Source: Track
Fade-In: 100 MS
Min Length: 300ms
Rel. Threshold: -Inf dB
Target Loudness -24.0 LUFS-I

DynAssist is extremely intuitive to use and allows you to work quickly.

Beat
MUST-HAVE
04/2025

In today's audio world, there are many smart tools that tackle specific sonic problems, but there are few solutions that can handle multiple tasks at once, especially in the often tedious editing realm. This is where NoiseWorks comes in with its DynAssist plug-in. This software is specially designed for vocals and promises to handle central editing tasks with just a few clicks - including leveling, pause removal and the editing of breath sounds and sibilants. An integrated Compressor/Limiter also ensures the desired overall level in accordance with the R128 loudness standard.

Four Processes in One

DynAssist combines four essential processing steps in one user-friendly tool: “Ride” ensures precise volume automation that compensates for level fluctuations. “Vox Gate” is an AI-supported gate that distinguishes between silence and vocal signals and does not inadvertently cut off quiet sounds. “Breath” recognizes and processes breathing noises, while ‘Sibilance’ is an intelligent de-esser that recognizes and balances sibilants. Each process can be switched on or off individually and offers targeted adjustment options that always conveyed a sense of control during the test.

The “All” tab shows the settings for all four processes at a glance. In addition to the vocal mode, there is also an instrument mode that focuses on non-vocal recordings.

Efficient Integration and Lookahead

A decisive advantage of DynAssist is its integration as an ARA extension in DAWs such as Cubase, Logic and Reaper, or as an AudioSuite plug-in in Pro Tools. This mode of operation enables an unlimited “lookahead” for volume automation, which prevents unwanted pumping effects and, at the same time, ensures minimal CPU load. In ARA mode, the entire track or just selected clips can be loaded. After analyzing the signal, DynAssist creates processing suggestions that are displayed graphically as automation curves. The audio data is loaded quickly, while the analysis may take some time, depending on the length of the material.

When it comes to sound performance, DynAssist is impressive. The volume automation and gate work inaudibly and reliably, while breaths and sibilants are precisely recognized and adjusted as required. The instrument mode also delivers good results. However, DynAssist cannot remove unwanted background noises, such as clicks, or reduce noise and reverb. It's not designed to handle all editing tasks, but concentrates on optimizing speech productions recorded in a clean environment.

Verdict

DynAssist offers an intelligent solution for vocal editing and gives users a considerable time advantage - especially for Podcasts. The combination of the four processes is unique and hits a nerve. The plug-in is easy to use and delivers sound results that could hardly be better achieved manually. For voice productions in a “clean” environment, DynAssist makes things considerably easier by reducing the number of additional tools required. DynAssist is priced at a medium level and, therefore, offers excellent value for money for professional users.

Overall, DynAssist is a remarkable example of how AI-powered tools can optimize the audio editing workflow. It's a solid choice for anyone who wants to focus on efficiency and quality when editing vocals. The clear user interface and intelligent algorithms make it a valuable addition to any studio specializing in voice production. The ability to combine several processing steps in a single tool not only saves time, but also significantly reduces the complexity of the workflow. ⁘

DYN ASSIST
Tutorial
auf Deutsch

More Info

Features

- Automatic leveler
- Intelligent de-esser
- Vocal gate
- Breath detection
- Compressor
- VST3, AU, ARA
- Windows, Mac

Facts

Developer: Noiseworks
Web: noiseworksaudio.com
Distribution: Retailer
Price: 149 Euro

- ▲ One-click solution
- ▲ Excellent detection
- ▲ ARA integration
- ▲ Operation

Features:	🟥🟥🟥🟥🟥🟥
Sound:	🟥🟥🟥🟥🟥🟥
Price/Perf:	🟥🟥🟥🟥🟥🟥
Total:	🟥🟥🟥🟥🟥🟥

Alternatives

Waves Vocal Rider
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IN TALK WITH
JORDAN RUDESS
TEST: MODAL ELECTRONICS CARBON8
FLAGSHIP WITH 512 STEP SEQUENCER
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ARP
MACRO SEQ
MASTER FX
NEON
ENV
EQ
FILTER
DRIVE
GATE
SPACE
CH 1
CH 2
CH 3

HEAVYOCITY
MOSAIC NEON*

Mosaic Neon offers an innovative sound palette that combines vintage synth sounds, glowing textures, and dynamic sequences for atmospheric tracks and retro-futuristic productions. This flexible Kontakt instrument allows you to layer three sound sources and edit and animate them in various ways to give your music a neon glow.

www.heavyocity.com **Gift ID:** F1576

no additional costs

SAVE $50

CHERRY AUDIO
VOLTAGE MODULAR IGNITE*

Voltage Modular Ignite is the ideal intro to modular synthesis, featuring 45 modules, including oscillators, filters, effects, and sequencers, plus 265+ inspiring presets. Its intuitive interface and versatile tools make it perfect for exploring creative sound design and sequencing.

www.cherryaudio.com **Gift ID:** F1338

no additional costs

SAVE $99

SPACED OUT
MODE
PROGRAM
WET
DRY
ECHOES
SPACE

BABY AUDIO
SPACED OUT*

Spaced Out is a versatile multi-effect that combines delay and reverb in an innovative way. Highlights are the ducker, the 16-step sequencer and the X/Y pad for quick sound adjustment. Spaced Out is a guarantee for futuristic effects, from groovy delays and atmospheric textures to otherworldly reverse sounds.

www.babyaud.io **Gift ID:** F1599

no additional costs

SAVE $139

OUTPUT
TUNE
MIXER 2
WAH
REALLPC
Guitar Amplifier
Electric Clean
Dream On
RealLPC
128 MB
STD
BARI
Tuning
AUTO
HOLD
Pickups
NECK
BOTH
BRG
MIDI
MULTI
PATTERN
SONG
Solo
Harmony
Chords
Bass'n'Chord
Bass'n'Pick

MUSICLAB
REALLPC 6*

RealLPC 6 captures the legendary sound of a Gibson Les Paul Custom with outstanding quality and a wide range of articulations. A real weapon for rhythm playing and expressive solos. Thanks to the Song Mode, lively guitar grooves can be created from 1250 rhythm patterns and chords and exported to your DAW via drag & drop.

www.musiclab.com **Gift ID:** F1585

no additional costs

* Only while stocks last. Software is delivered as a download with a serial number.

Presets and audio demos in the magazine downloads (see page 9)

Hands-on: Recreate Top-Ten Sounds

Dope Tracks #14

Audio Demo
TEED

Audio Demo
Trent Reznor &
Atticus Ross

The desire to have that ONE sound at home, that one track that you can't get out of your ear, unites us as Producers. But transferring what you've heard to the right parameters with the right values takes training. Every month on Dope Tracks, we feature two sounds from the latest hot songs - this month it's Totally Enormous Extinct Dinosaurs and Anna Lunoe with "Right Here" and "Challengers" by Trent Reznor, Atticus Ross and Boys Noize.

by Julian Schmauch

Project info:

Material: DAW, diverse Plug-ins
Time required: 1 – 2 hours
Content: Reconstruct the sounds of popular Pop & EDM tracks.
Difficulty: Advanced to Pro

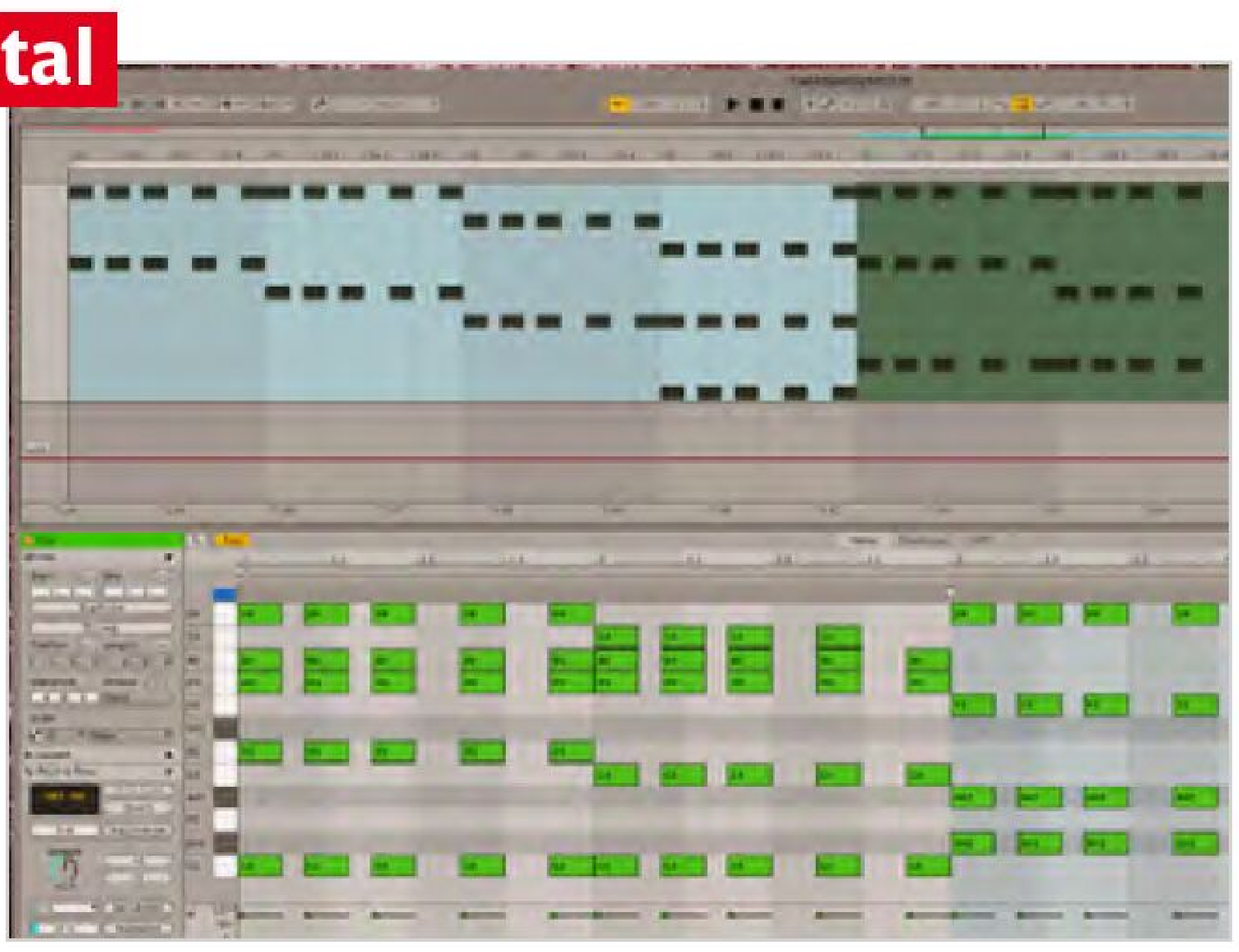
Totally Enormous Extinct Dinosaurs and Anna Lunoe – Right Here: Pad w/ Vital

1 TEED Talk

Orlando Higginbottom has been producing and releasing under the slightly absurd alias Totally Enormous Extinct Dinosaurs since 2008. His releases range between Future House, Electro and UK Garage. He has released two albums to date, produced remixes for Lady Gaga and Katy Perry, founded a label and worked with Bonobo.

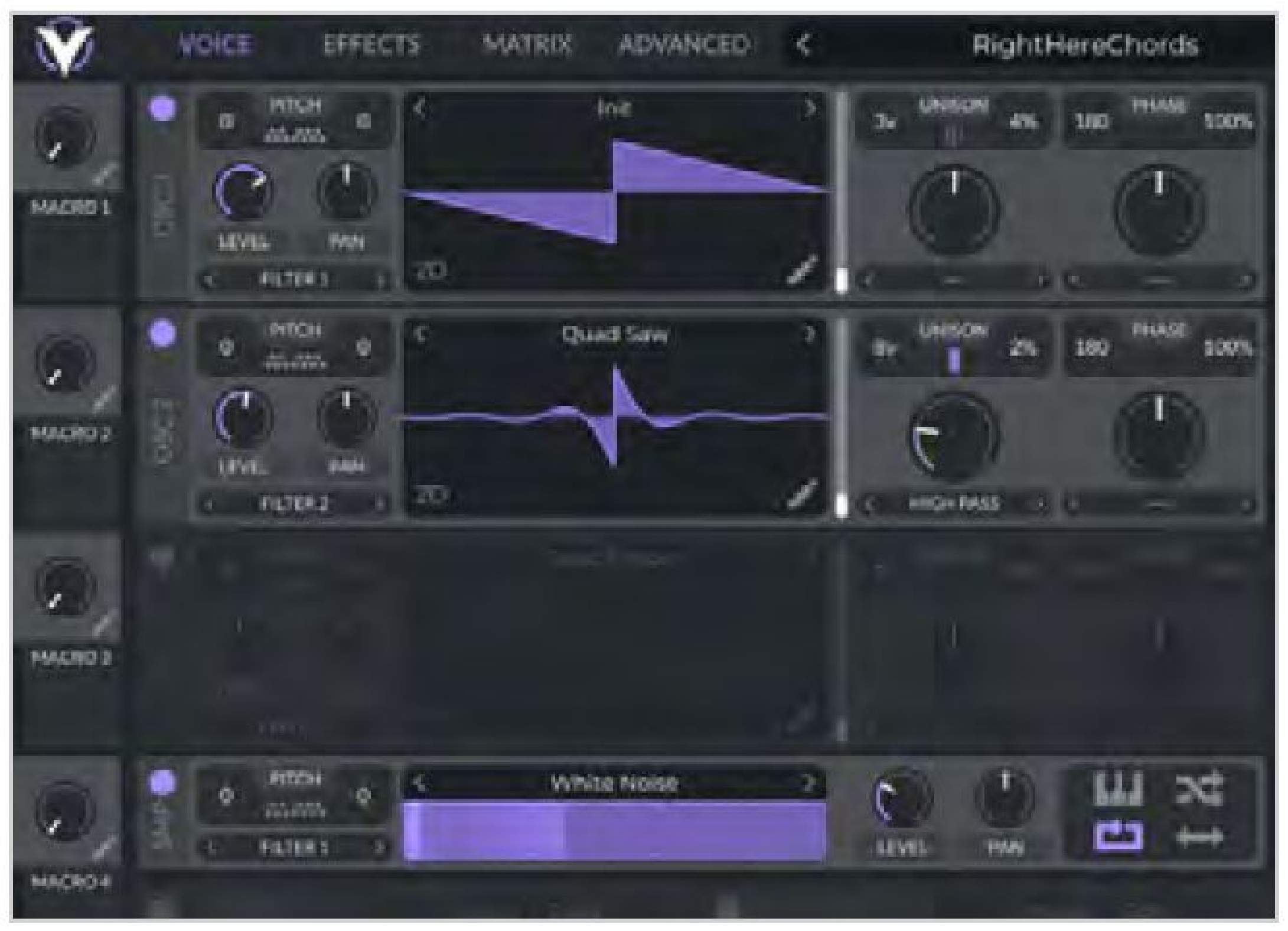
2 Anna Lunoe

Higginbottom and Anna Lunoe have been collaborating since 2014 for the track "Feels Like". The Australian has also produced with Flume, Skrillex and Chris Lake. She has also had her own radio show on Apple's Beats 1 Radio since 2015 called Anna Lunoe Presents: HYPERHOUSE. Jamie XX, Diplo and Boys Noize have already been guests.



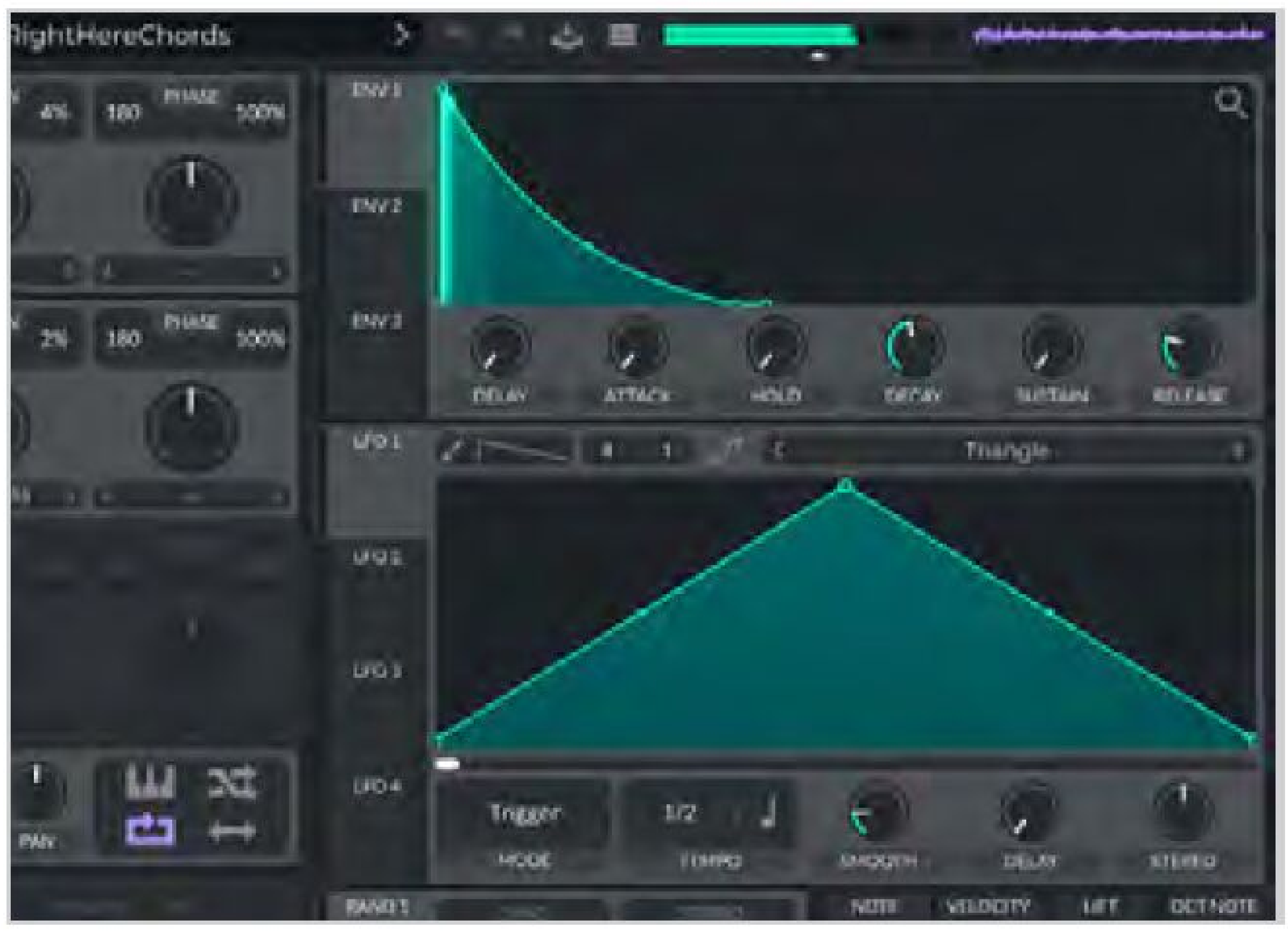
3 Powerful Chords

Whether or not "Right Here" is Future House is debatable - it can be found on Beatport under House. However, the powerful, polyphonic chords point more in the former direction. Four, sometimes five-part chords fire through "Right Now" as it heads into the finale. Today we are focusing on the louder of the two pad sounds.


VOICE
EFFECTS
MATRIX
ADVANCED
RightHereChords
MACRO 1
MACRO 2
MACRO 3
MACRO 4
UNISON
PHASE
LEVEL
PAN
FILTER 1
FILTER 2
Quad Saw
HIGH PASS
White Noise

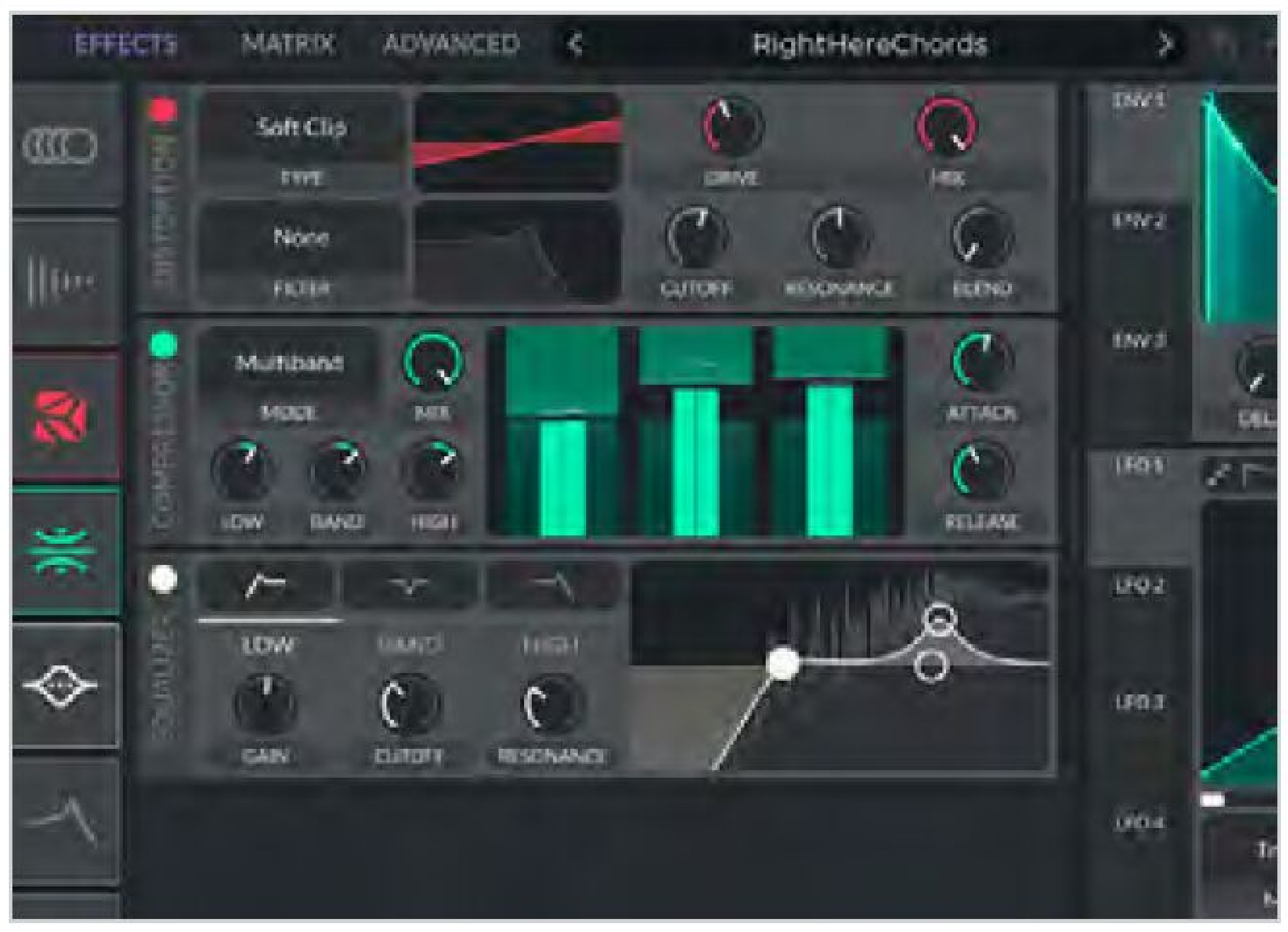
4 Vital Signs

Let's hope Vital hasn't been abandoned by its creator Matt Tytel; there have been no updates or announcements for almost two years! The sound design for "Right Here" has once again shown how powerful the plugin is. OSC 1 gets a Saw Wave, Osc 2 the Wavetable Quad Saw, both with small doses of Unison, Osc 2 with a highpass spectral filter.


RightHereChords
ENV 1
ENV 2
ENV 3
DELAY
ATTACK
HOLD
DECAY
SUSTAIN
RELEASE
LFO 1
LFO 2
LFO 3
LFO 4
Triangle
Trigger
MODE
1/2
TEMPO
SMOOTH
STEREO

5 No Release!

To ensure that the chords are as snappy as possible, the release of envelope 1 must be no longer than 0.15 seconds, with a Decay of 1.5 seconds. Add a little White Noise from the SMP Oscillator for some punch. Then, it's off to the effects section for the final sound design, because the sound is still not punchy enough - EQ, Compressor and Distortion help!


EFFECTS
MATRIX
ADVANCED
RightHereChords
DISTORTION
Soft Clip
TYPE
DRIVE
MIX
None
FILTER
CUTOFF
RESONANCE
BLEND
COMPRESSOR
Multiband
MODE
LOW
BAND
HIGH
ATTACK
RELEASE
EQ
GAIN

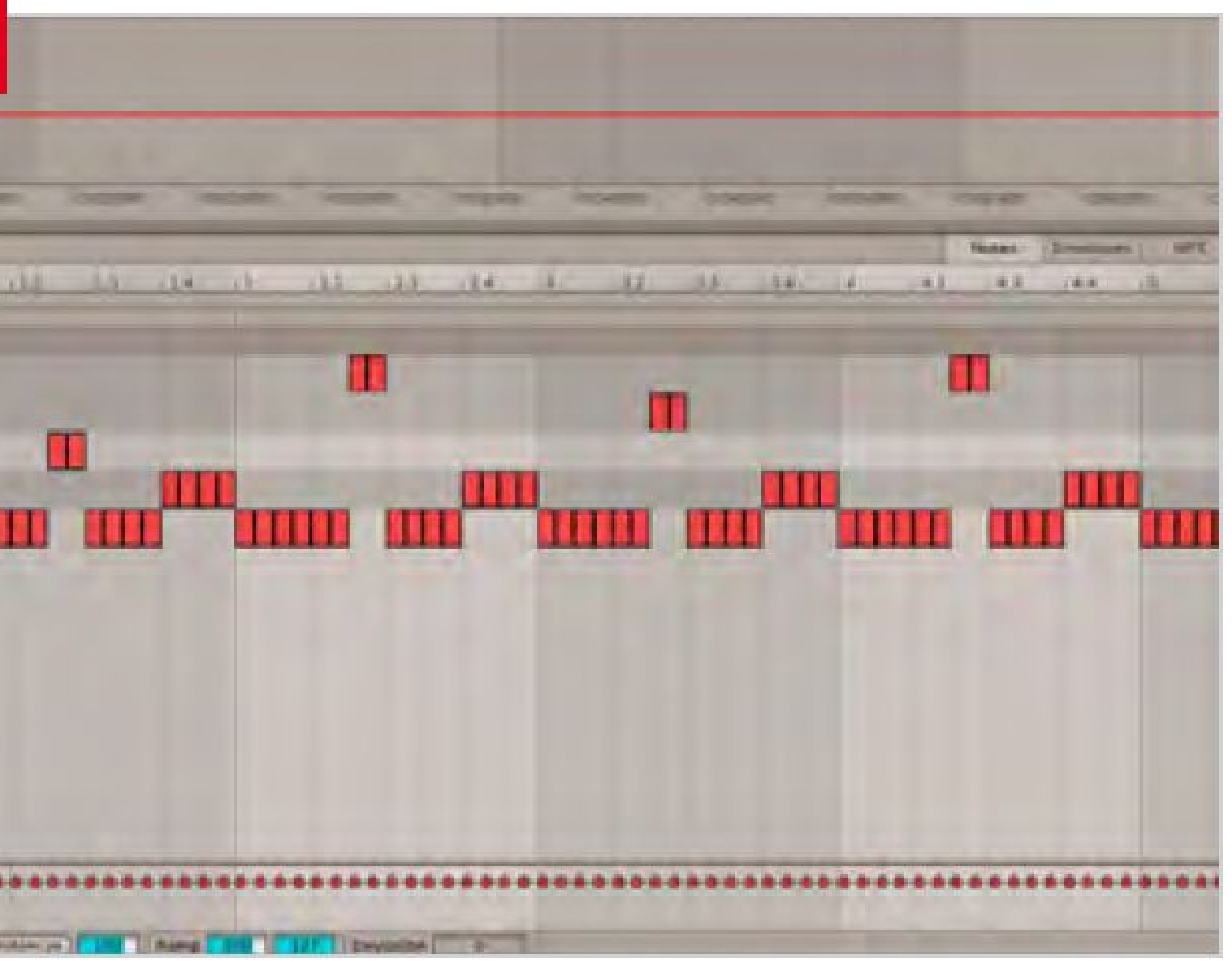
6 Highpass OTT

Distortion must not distort the chords too much, maximum -5 dB, otherwise they become blurred. Compressor in OTT mode then boosts the treble band, in particular. The EQ then attenuates low frequencies and accentuates the upper mids. This brings out the slightly scratchy sound by around 10 kilohertz - and the summery Future House board is complete.

Trent Reznor & Atticus Ross (w/ Boys Noize) – Challengers: Arp w/ Phase Plant

CHALLENGERS
MUSIC BY
TRENT REZNOR
& ATTICUS ROSS

CHALLENGERS
MUSIC BY
TRENT REZNOR
& ATTICUS ROSS



1

Nine Inch Soundtrack

Atticus Ross, and Trent Reznor in particular, are known to some as Industrial legends Nine Inch Nails. Since the soundtrack of “The Social Network”, for which they promptly won the Oscar for best film music, they have been a fixture in Hollywood. Reznor and Ross also composed a dark soundtrack for “Challengers”.

2

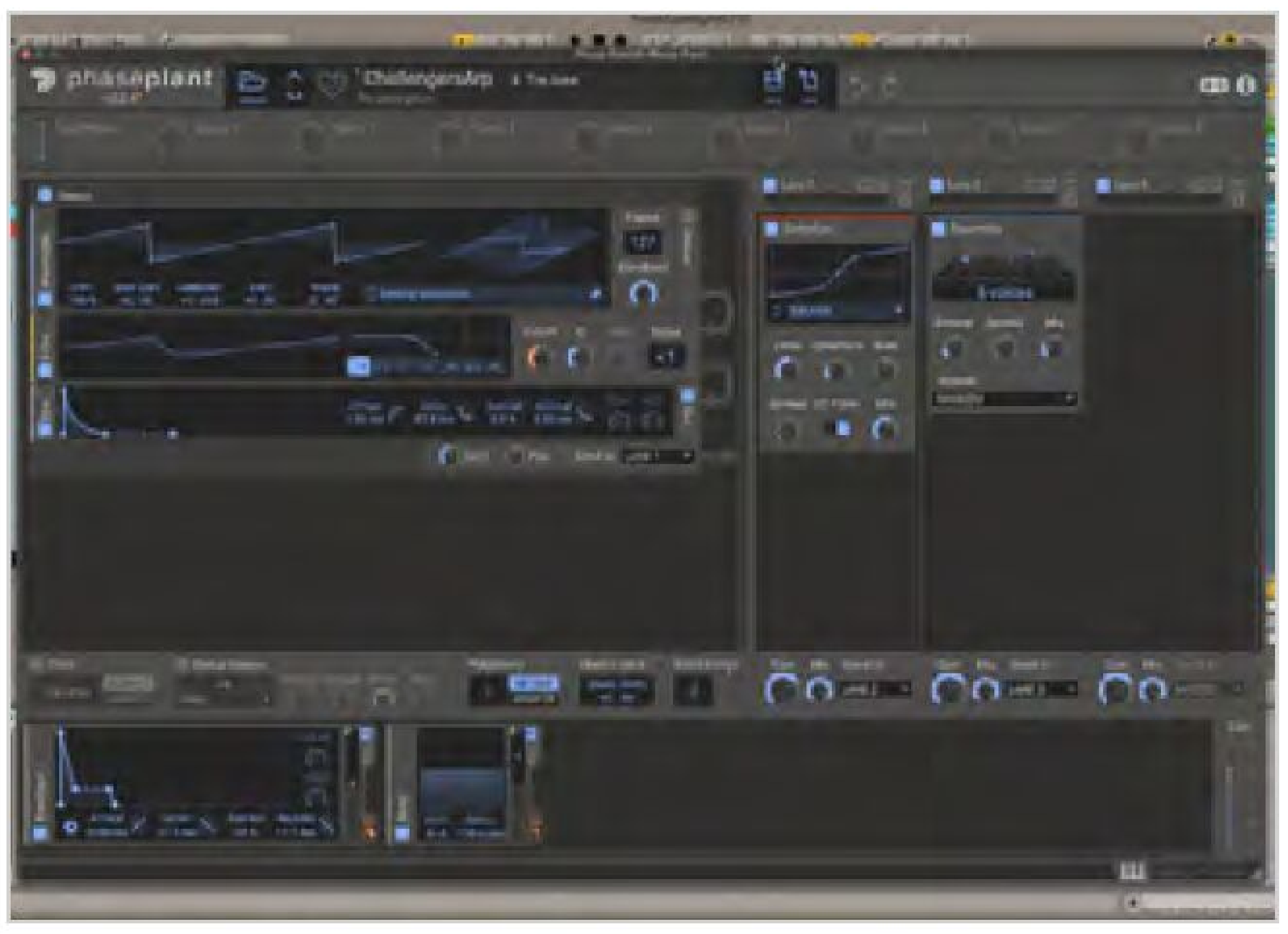
Mixed by Boys Noize

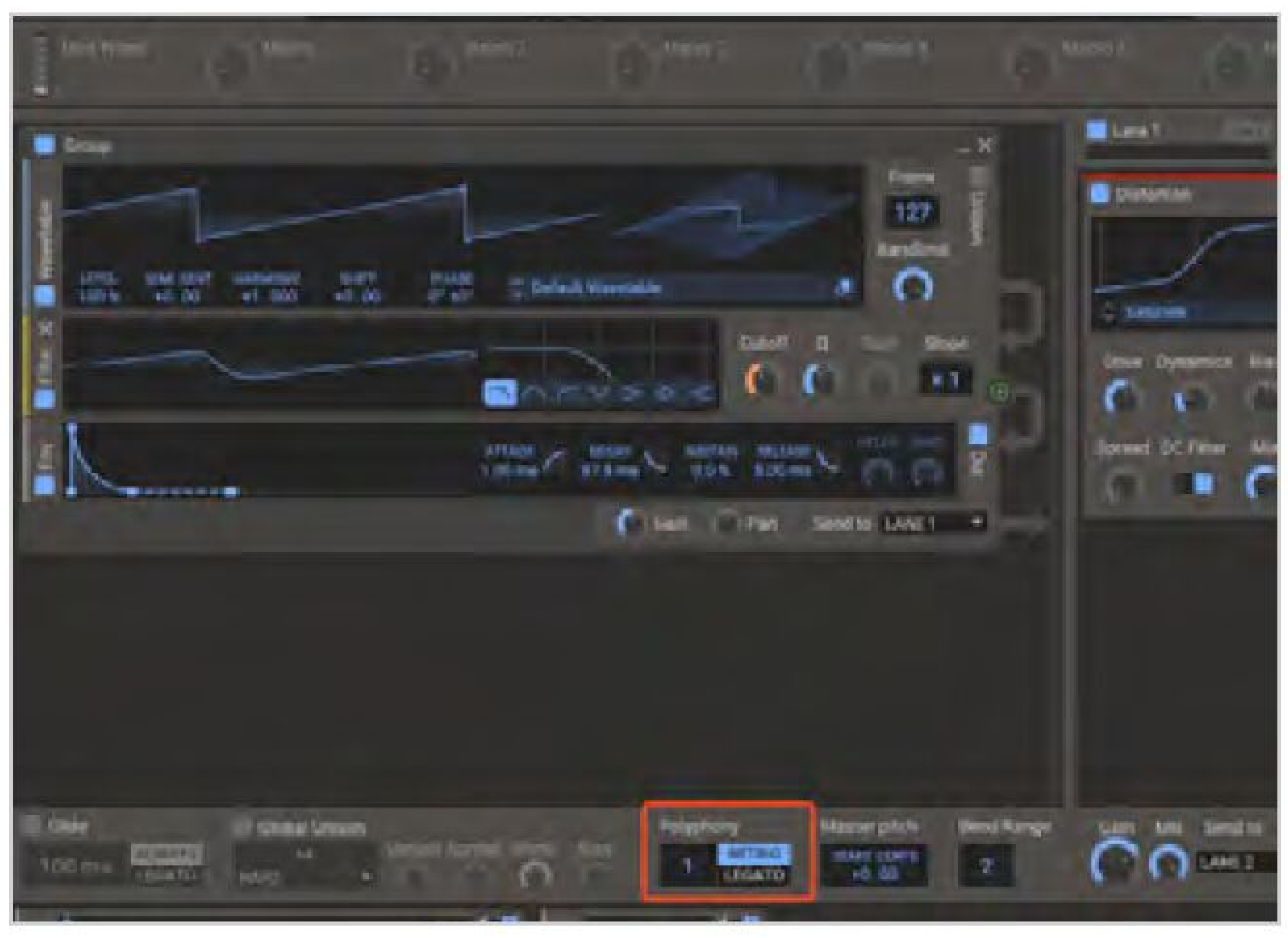
As Boys Noize, Alexander Ridha has achieved pretty much everything you can achieve as a Techno producer: Grammy nomination, releases with Chiliy Gonzales, ASAP Rocky, Frank Ocean, Bon Iver and Jean Michel Jarre, eight successful albums. Reznor contacted Ridha for a more club-friendly version of the Challengers soundtrack.

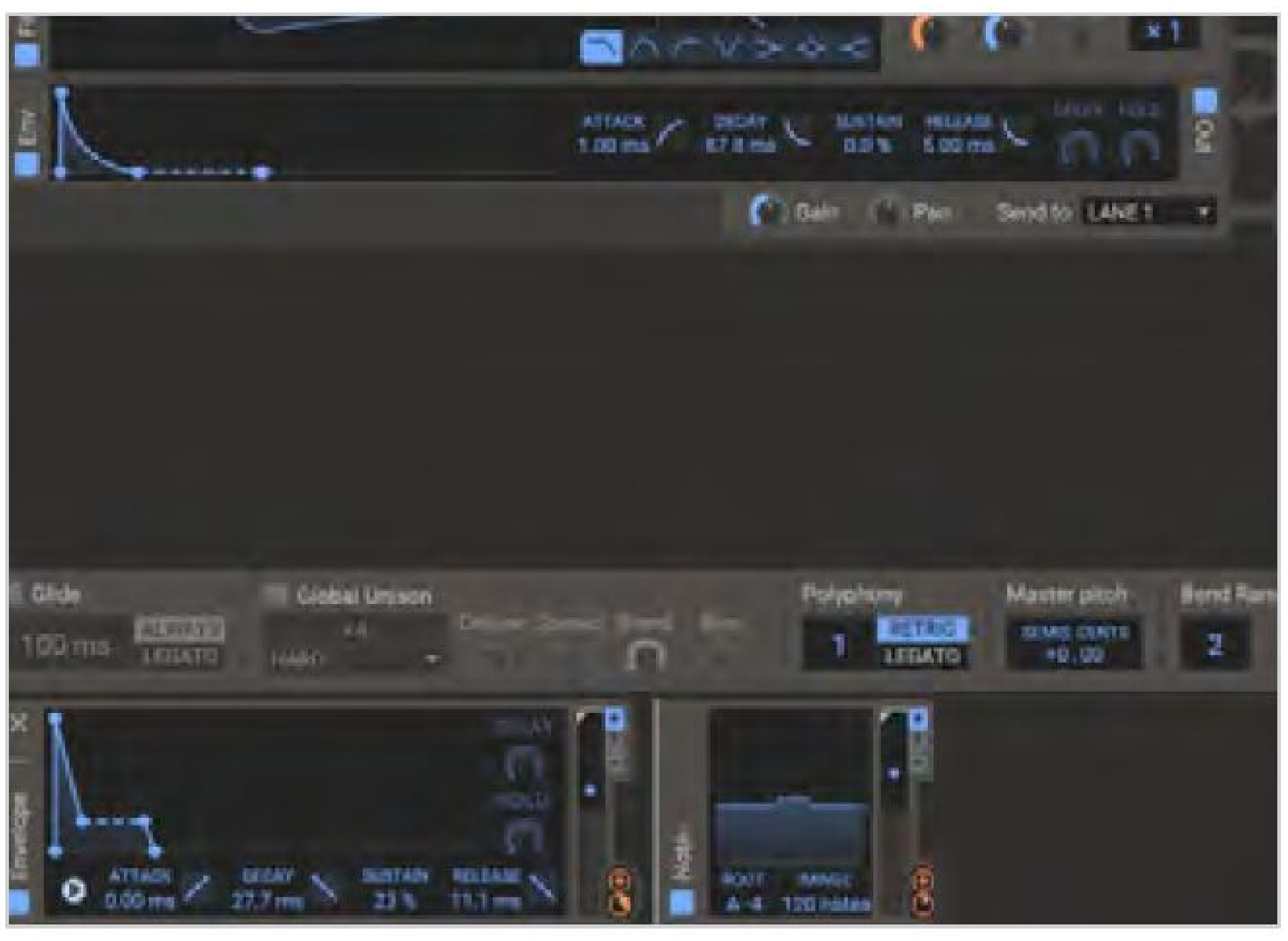
3

Arp-ology

It was easy to recreate the continuous arpeggio of the track in terms of the notes. In terms of sound, however, it gave me more headaches than expected. What initially sounded more like a Moog turned out to be more modern as the sound design progressed; almost like a smacking PsyTrance Bass. Phase Plant is perfect for this.


phaseplant
ChallengersArp


Frame
127
Polyphony
1
RETRIG
LEGATO


Glide
100 ms
Global Unison
Polyphony
1
Master pitch
Bend Range
2
ATTACK
DECAY
SUSTAIN
RELEASE

4

Phase, Planned

The most modular of the flagship software synthesizers got me to the sound I wanted faster than LegendHZ and Omnisphere, my first candidates. I also got very close to the sound with Serum, but we‘ve just been through that with Dope Tracks - fair play!

5

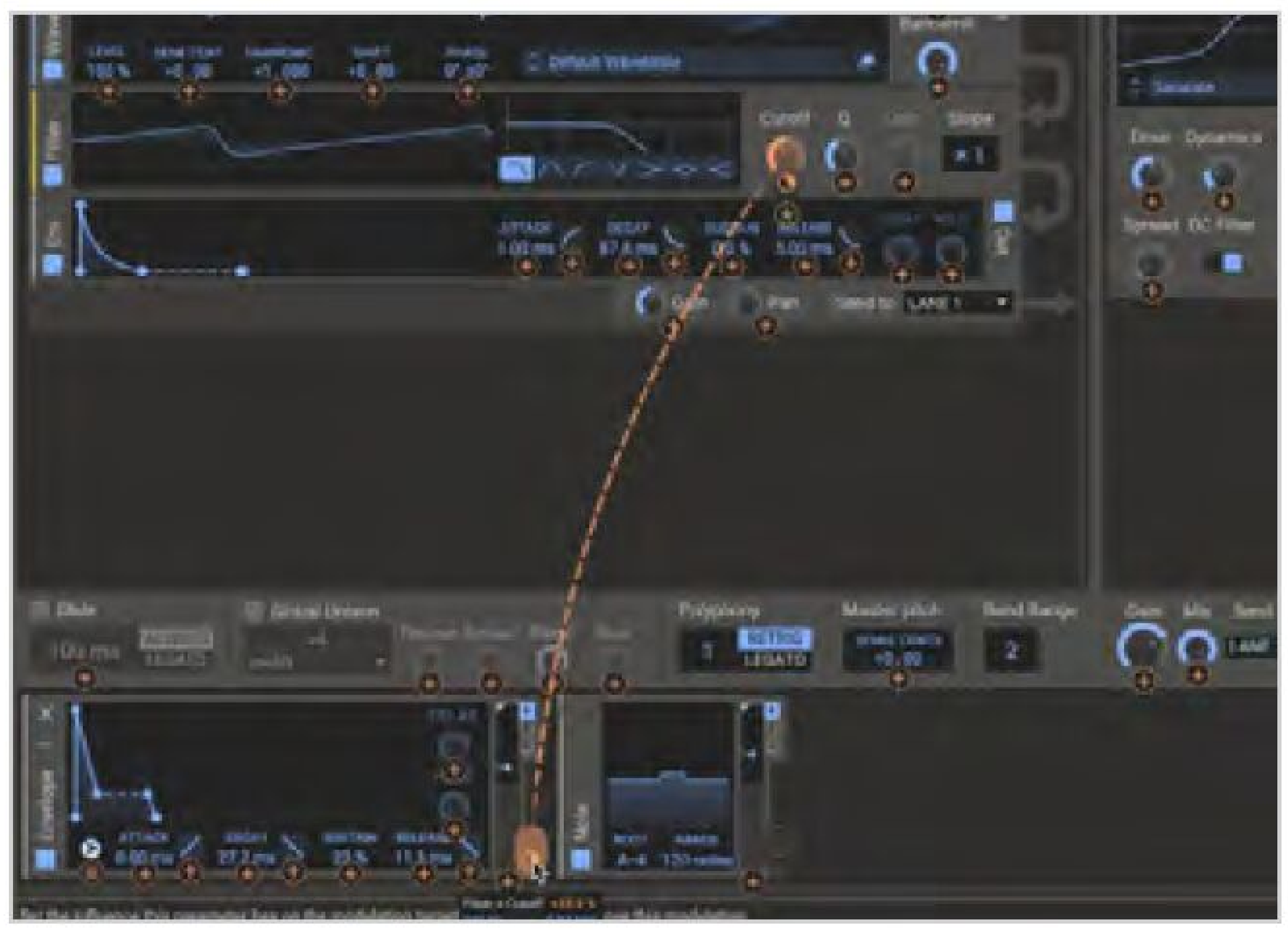
Saw Wave

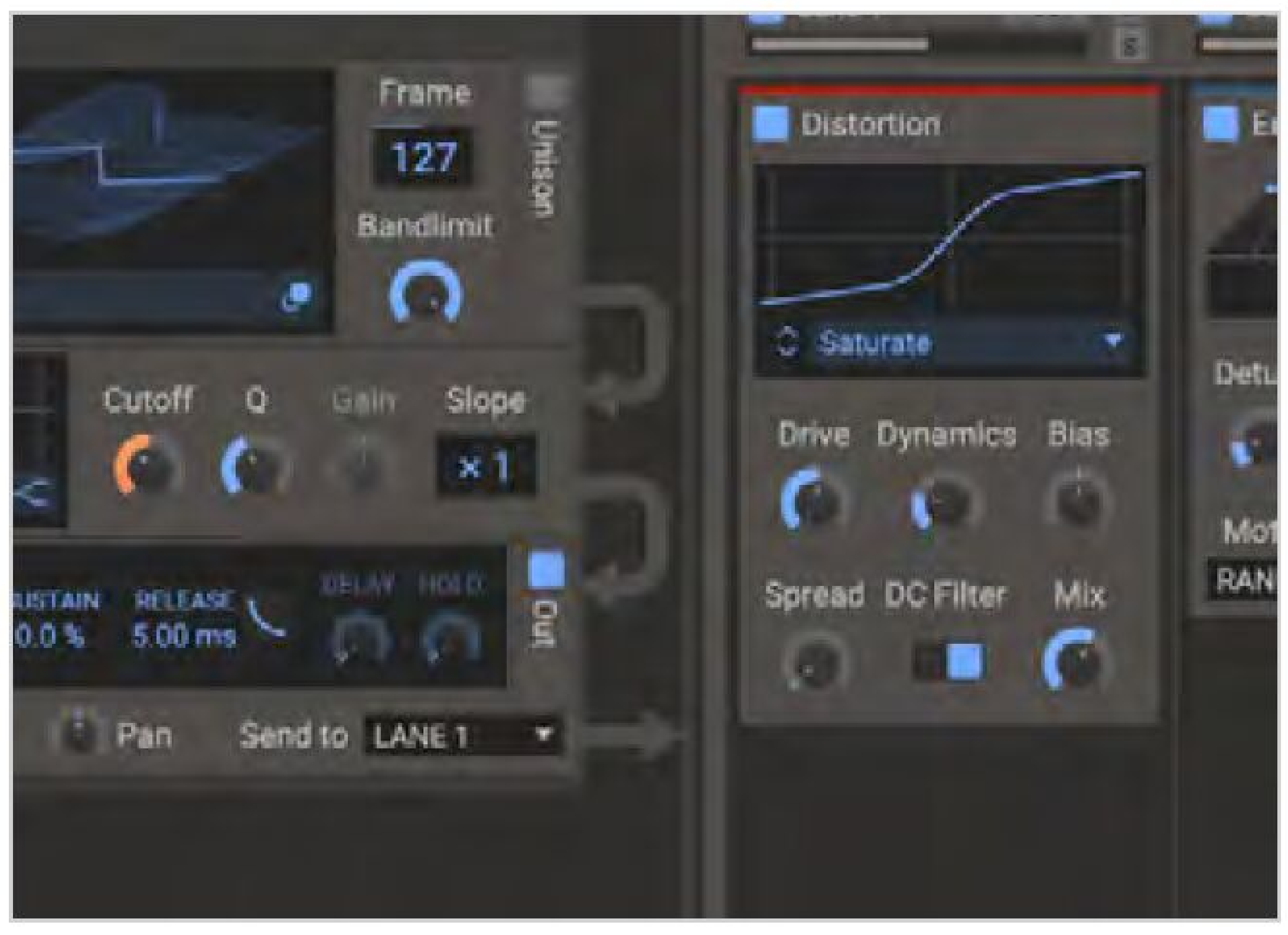
The initial setup is as simple as it is effective. A Saw Wave from the Wavetable Module, which you can access by dragging the 3D view of the default wavetable approximately to the center; it should be at Frame 127. Set Polyphony to 1 at the bottom, we remain monophonic, so each new note interrupts the decay of the previous one.

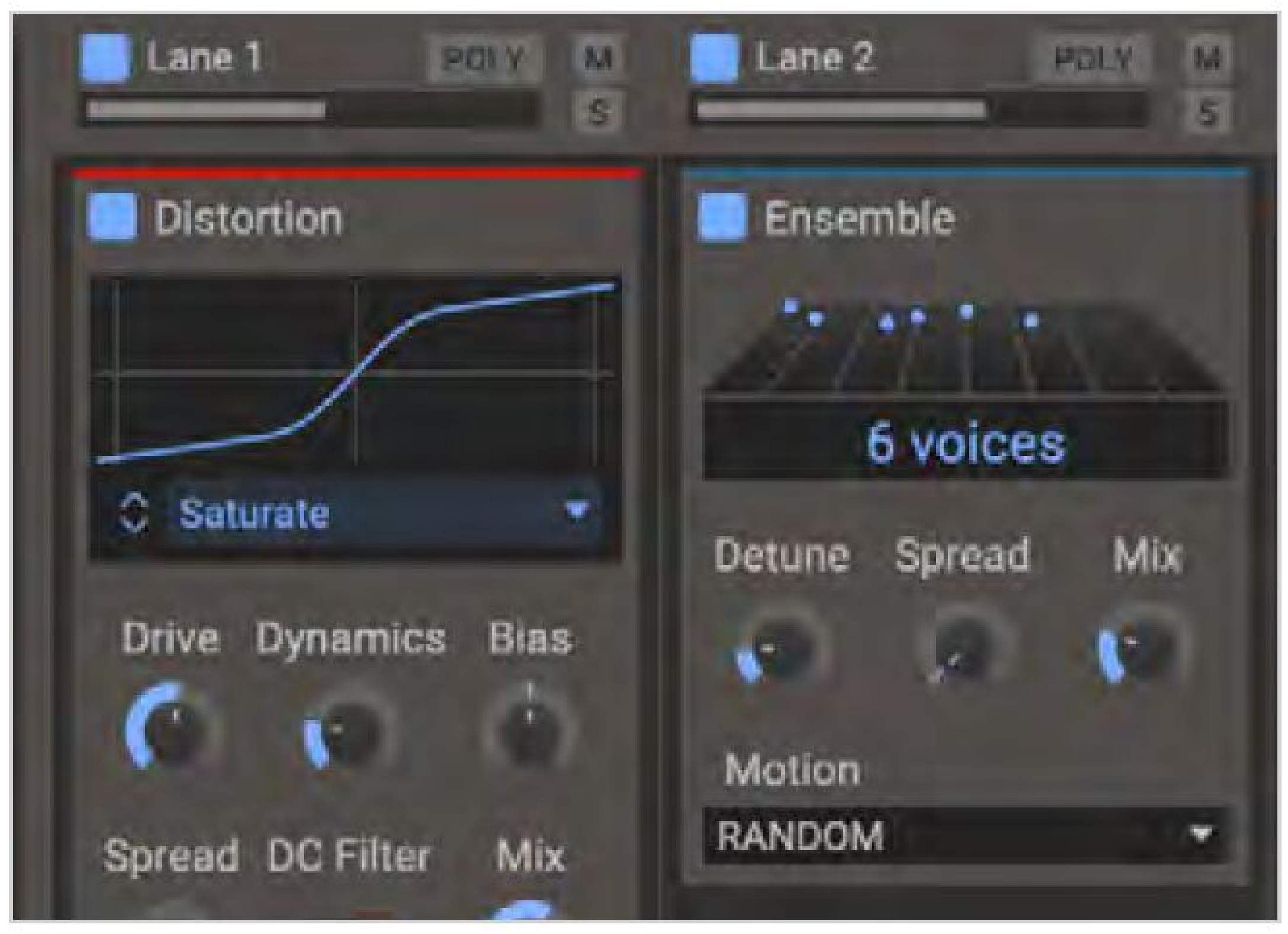
6

Filter

In principle, it doesn‘t matter where in the signal flow you load the Filter. To keep it clear, I loaded it directly into the Oscillator Module and set the cutoff to 250 Hertz. This is modulated by two modulators. One is an Envelope Modulator at 36% and the other is the Note Modulator at 13%.




Frame
127
Bandlimit
Unison
Cutoff
Q
Gain
Slope
×1
SUSTAIN
0.0 %
RELEASE
5.00 ms
DELAY
HOLD
Out
Pan
Send to
LANE 1
Distortion
Saturate
Drive
Dynamics
Bias
Spread
DC Filter
Mix


Lane 1
POLY
M
S
Lane 2
POLY
M
S
Distortion
Saturate
Drive
Dynamics
Bias
Spread
DC Filter
Mix
Ensemble
6 voices
Detune
Spread
Mix
Motion
RANDOM

7

Envelopes

This is because the Cutoff opens more or less depending on the note pitch played - this is called keytracking. In the Oscillator Envelope, Attack is set to 1ms, Decay to 87ms, Sustain to 0 and Release to 5ms. In the Modulation Envelope below, Attack is set to 0ms, Decay to 28ms, Sustain to 23% and Release to 10ms. This makes the arp nice and “snappy”.

8

Distortion

To give the sound a little more analog character, the Distortion Module distorts it in Effect Lane 1. Get a 5.5 dB Drive in “Saturate” mode, 60% Mix, Spread at 0 - it‘s getting warmer! The high notes of the arpeggio in particular sound more analog and scratchy without the need for a Chorus and Flanger effect to wash them out.

9

Ensemble

However, you can also hear exactly this washed-out quality in the original. And with the “Ensemble” effect, we create washed-out sounds in Phase Plant. Also important here: small Mix proportion (25%), Spread to 0, Detune to 16%. Otherwise, the sound will be too blurred and won‘t be able to assert itself properly in the arrangement. Don‘t forget to save.

Zampler Plug-in, Soundset, audio demo and MIDI files: Download see page 9

Zampler & MPC Expansion: EDM Blaster

Mainstage sound for your studio

With our new soundbank, you can bring the main stage sound of festivals to your studio. The included fat basses and energetic synths give you everything you need to create rousing drops in the style of festival legends such as W&W and Blasterjaxx. We'll look at exactly how to use this soundbank in a moment. **by Ruben Mantel and Marco Scherer**

Beat
ZAMPLER//RX
MORE SOUNDS
BEAT.DE
PLUGS & SAMPLES
002: BS DX7 Bright Bow
BEAT magazine // patch by Marco Scherer
Polyph.: 12
Bend up: 2
Bend down: 2
FILTER
OUTPUT
MOD ENVELOPE
FILTER ENVELOPE
AMP ENVELOPE
BEAT PLATINUM SELECTION
BLASTER EDM
72 HI ENERGY SYNTHS & BRUTAL 808 BASSES
ZAMPLER//RX
SAMPLE- & LOOP-WORKSTATION
Win Mac
VST + AU
MPC EXPANSION

Facts

EDM Blaster for Zampler:

- ▲ 1.39 GB Soundbank
- ▲ 72 Patches
- ▲ 37 Basses
- ▲ 32 Leads, Synths & Chords
- ▲ 3 Pads
- ▲ 1,008 Samples

EDM Blaster for Akai MPCs:

- ▲ 721 MB Expansion
- ▲ 72 Patches
- ▲ 37 Basses
- ▲ 32 Leads, Synths & Chords
- ▲ 3 Pads
- ▲ 360 Samples
- ▲ Compatible with Akai MPC One, X, Live, Live mkII, Force, Studio, Touch, Renaissance, Key 61, MPC Software 2 & MPC Beats

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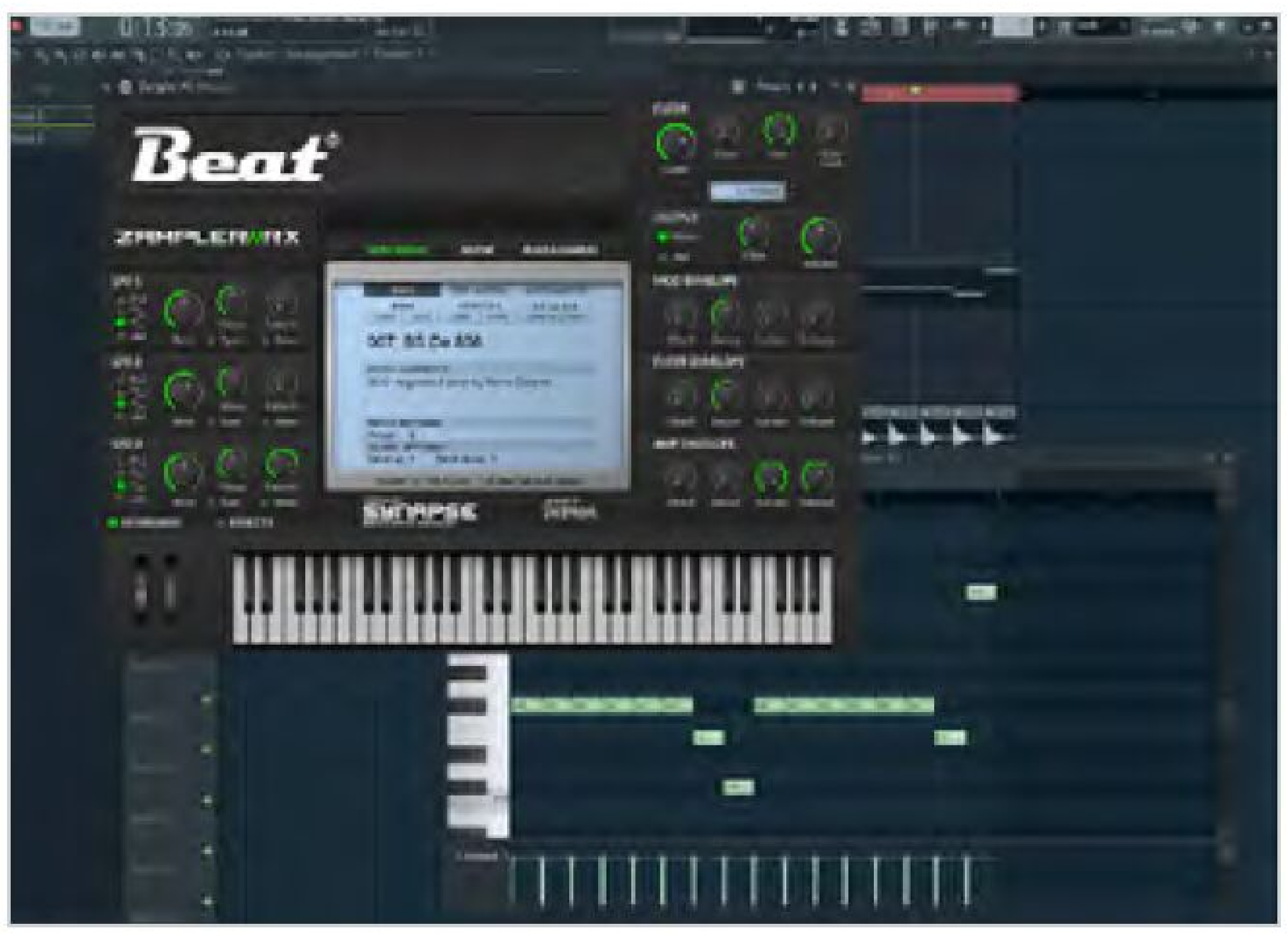
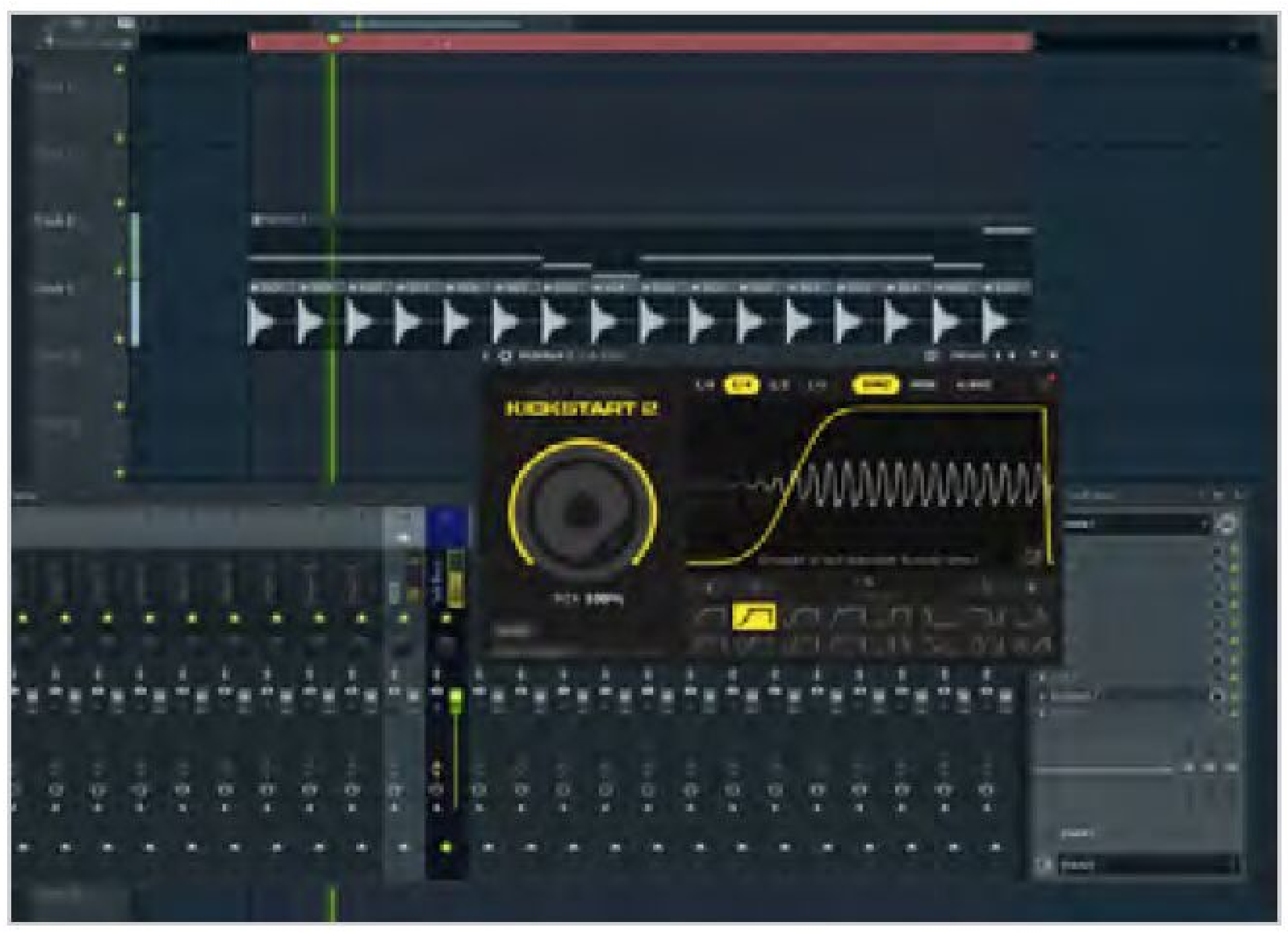


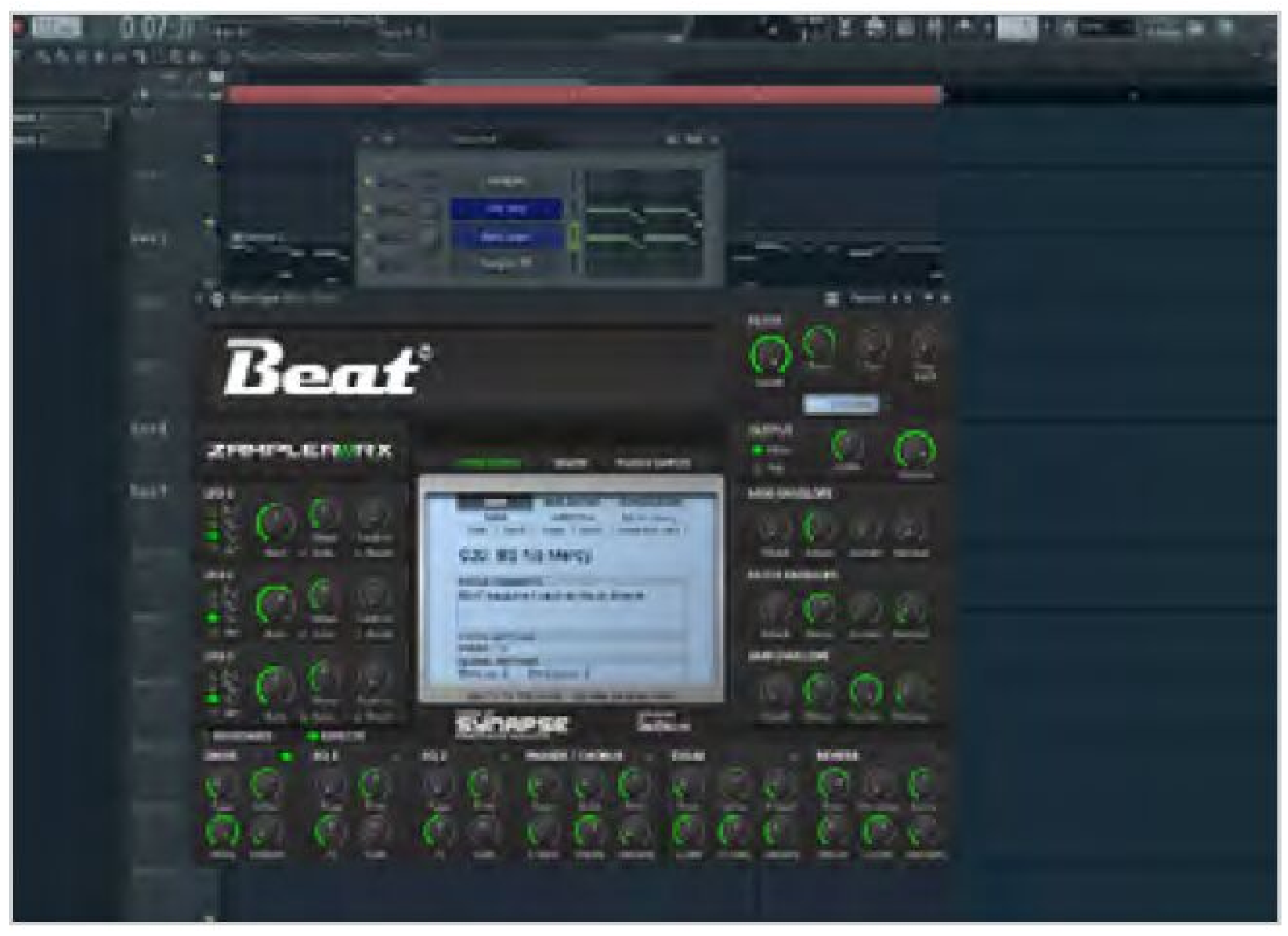
1 In the Beginning - Kick

We start with a four on the floor Kick as a foundation in a new project at **132 BPM**. We then layer this with the preset **007: BS Da 808**, which extends the sustain phase of the Kick, especially in the sub-bass range, so that it always remains powerful. It also makes it tonal, which defines the basic tone of the track.



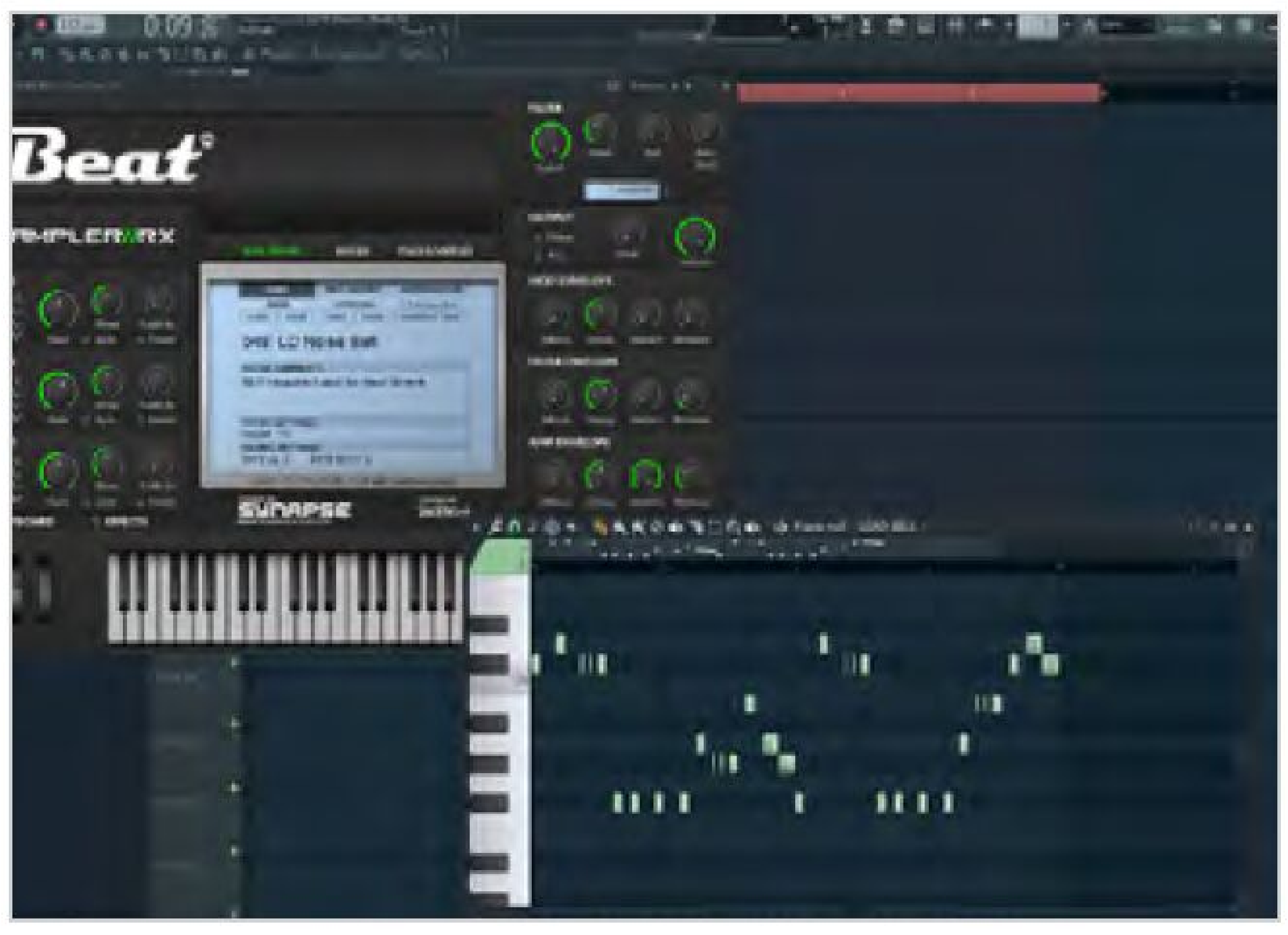
2 Two Become One

As the Kick and Subbass are currently overlapping in the very low frequencies, we load a **volume shaper** onto the Kick Channel, such as the Kickstart 2 plug-in from Nicky Romero. Adjust the curve so that the Subbass and Kick fit together seamlessly like two pieces of a puzzle. If necessary, shorten the sustain phase of the Kick.



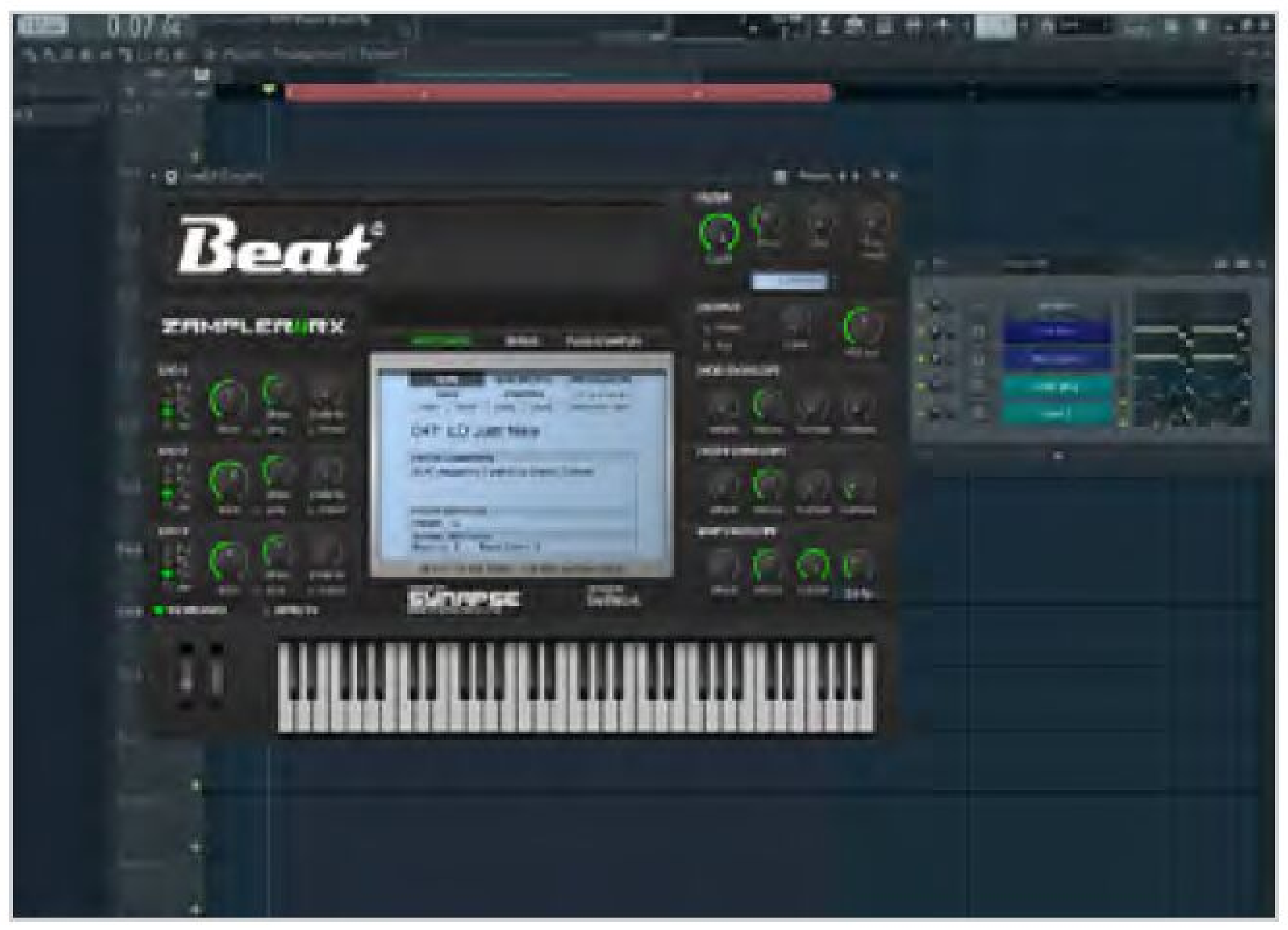
3 Bass Layer

What‘s better than one Bass? That‘s right, two Basses! That‘s why we now load patch **020: BS No Mercy** for layering. This sound also fills out higher frequencies where the Subbass can no longer reach. Again, volume shaping or sidechaining to the Kick is essential. In addition, use an EQ to cut all frequencies below **100-150 Hz** from this Bass.



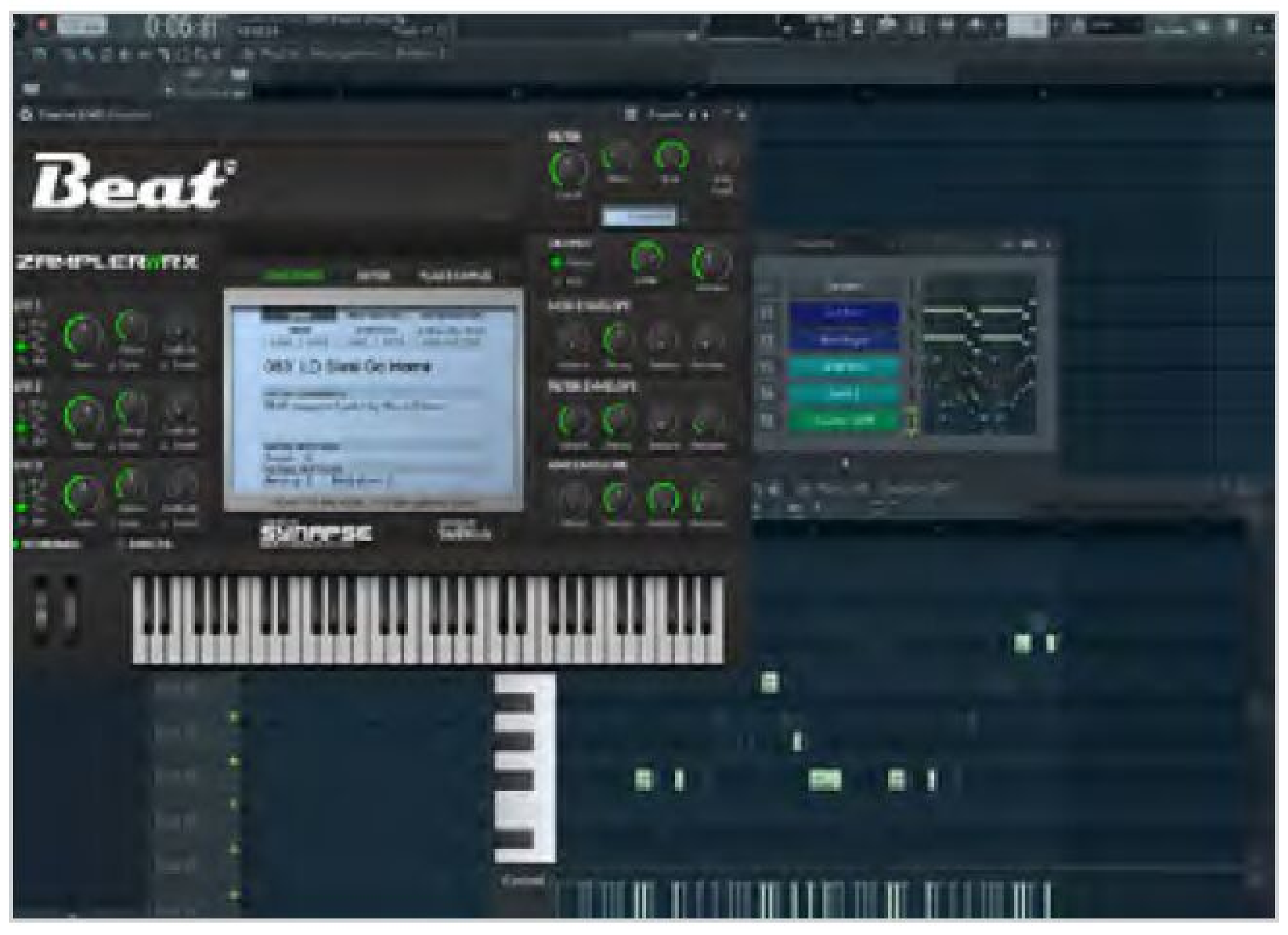
4 Pluck

The basic building blocks are in place, now let‘s move on to something melodic. We modify preset **049: LD Noise Bell** by shortening the **AMP Envelope Release** to around **30 %**. This gives us a very mainstage-typical pluck sound that provides a nice contrast with its atmospheric character. Pay attention to the rhythm when writing the melody.



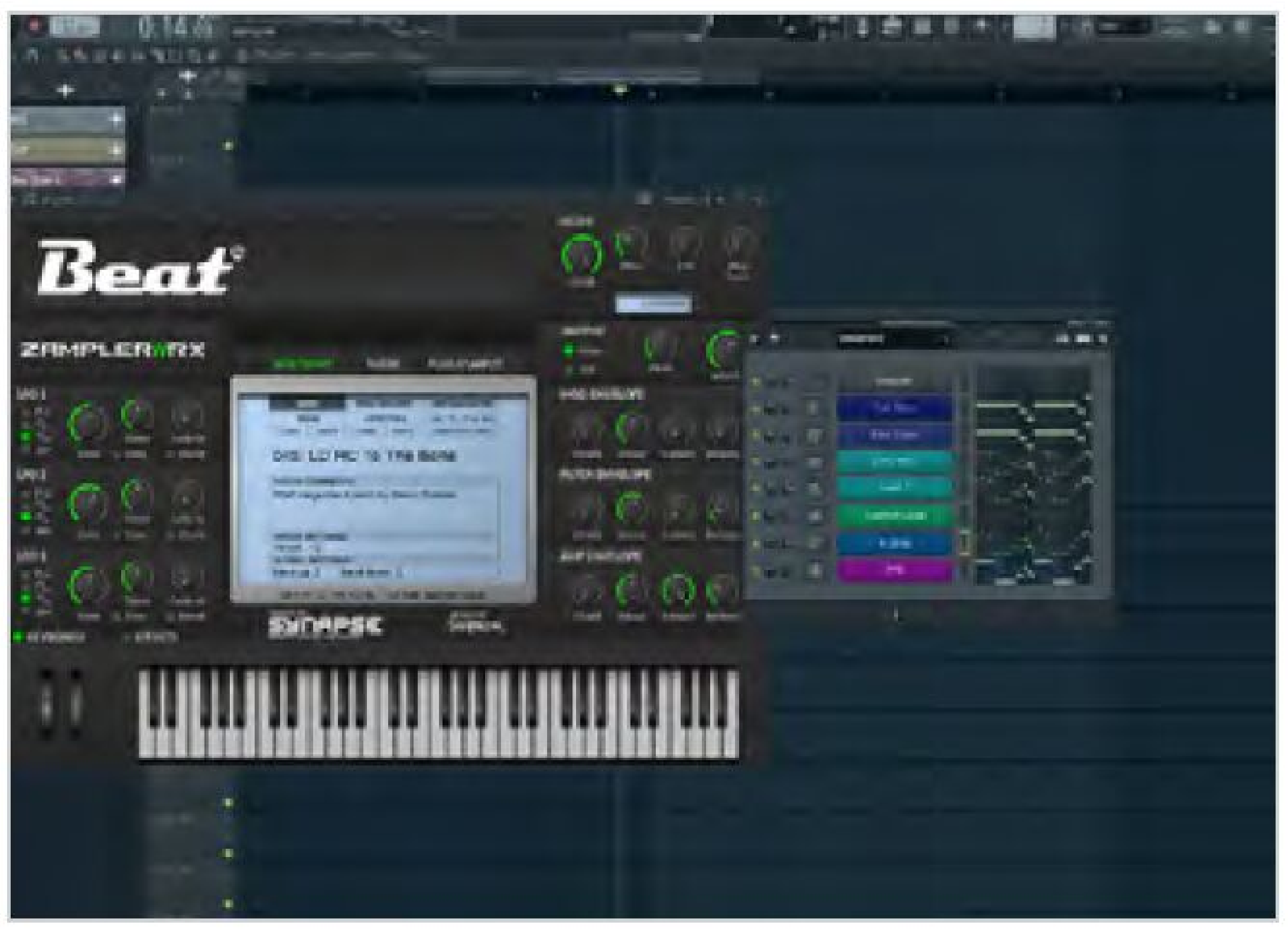
5 Pluck Layer 2

To expand the sound, we layer the first pluck with patch **047: LD Just Nice**. Once again, we shorten the **Release Time** under **AMP Envelope** to around 30 %. To make the overall pluck sound more brute, we place one of the two layers to the sides of the stereo field, which can be achieved using the Haas effect, for example.



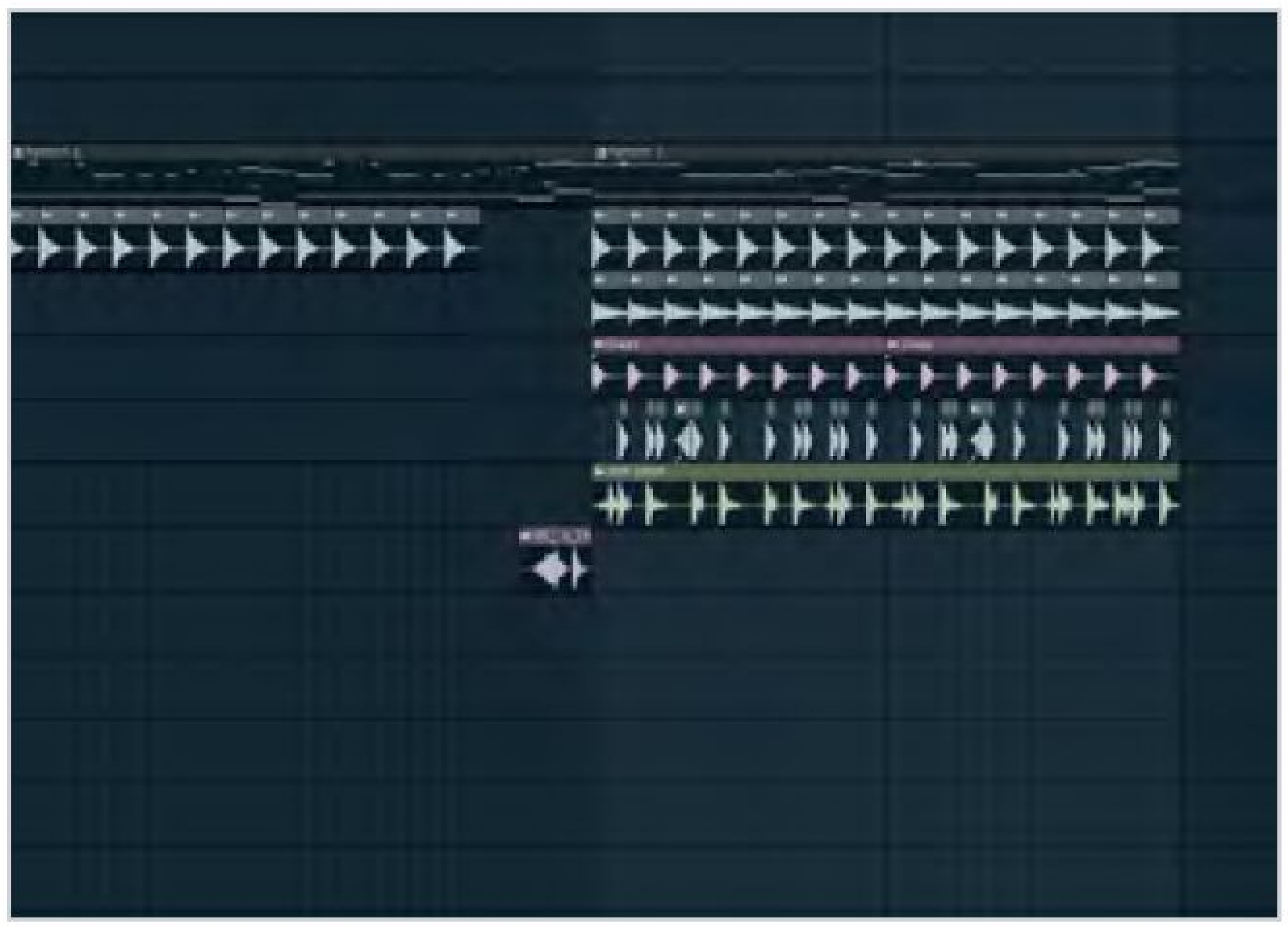
6 More Excitement

Create more excitement by selecting preset **053: Ld Sissi Go Home** and play only selected notes from the main melody. Also select the **Mono** button under **Output** and set **Glide** to **80%** to emphasize some notes with a pitch bend by placing another note an octave lower at the same time.



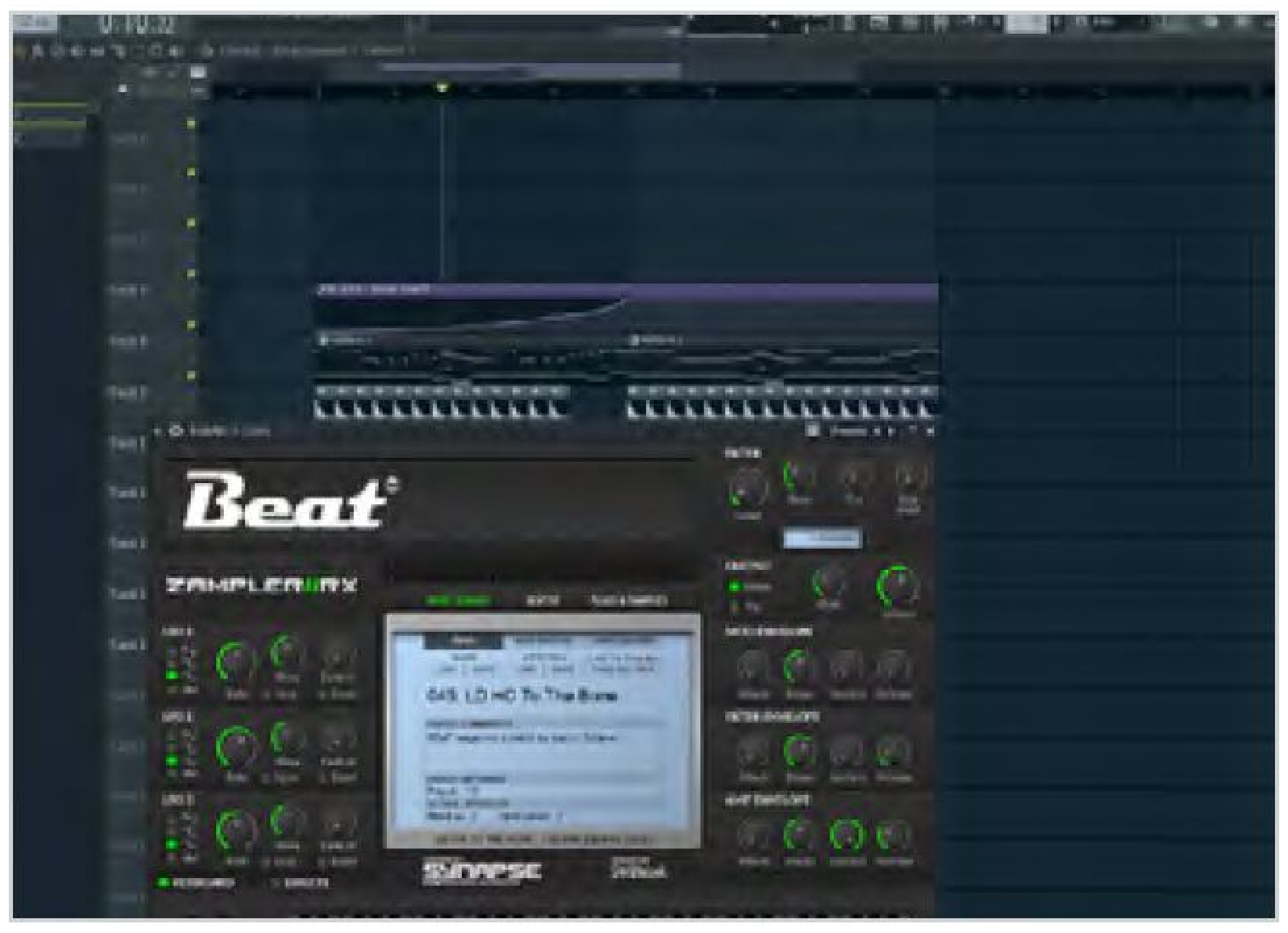
7 B-Part

To increase the energy of the drop in the B part, we load the additional lead **045: LD Hc To The Bone**, which then contributes to a more massive sound as an additional layer of the main melody. Also experiment with octave shifts. In many cases, the same melody can sound a lot more energetic when played an octave higher.



8 Drums

While only the bare Kick was sufficient for the drums in the first part of the drop, other sounds are added in the second part to increase the energy. Layer the Kick with **Claps** and **Rides** for more punch and find suitable **Toms** and **Top Loops** to complement the rhythm of the drop. Also use drum fills for transitions.



9 Merge

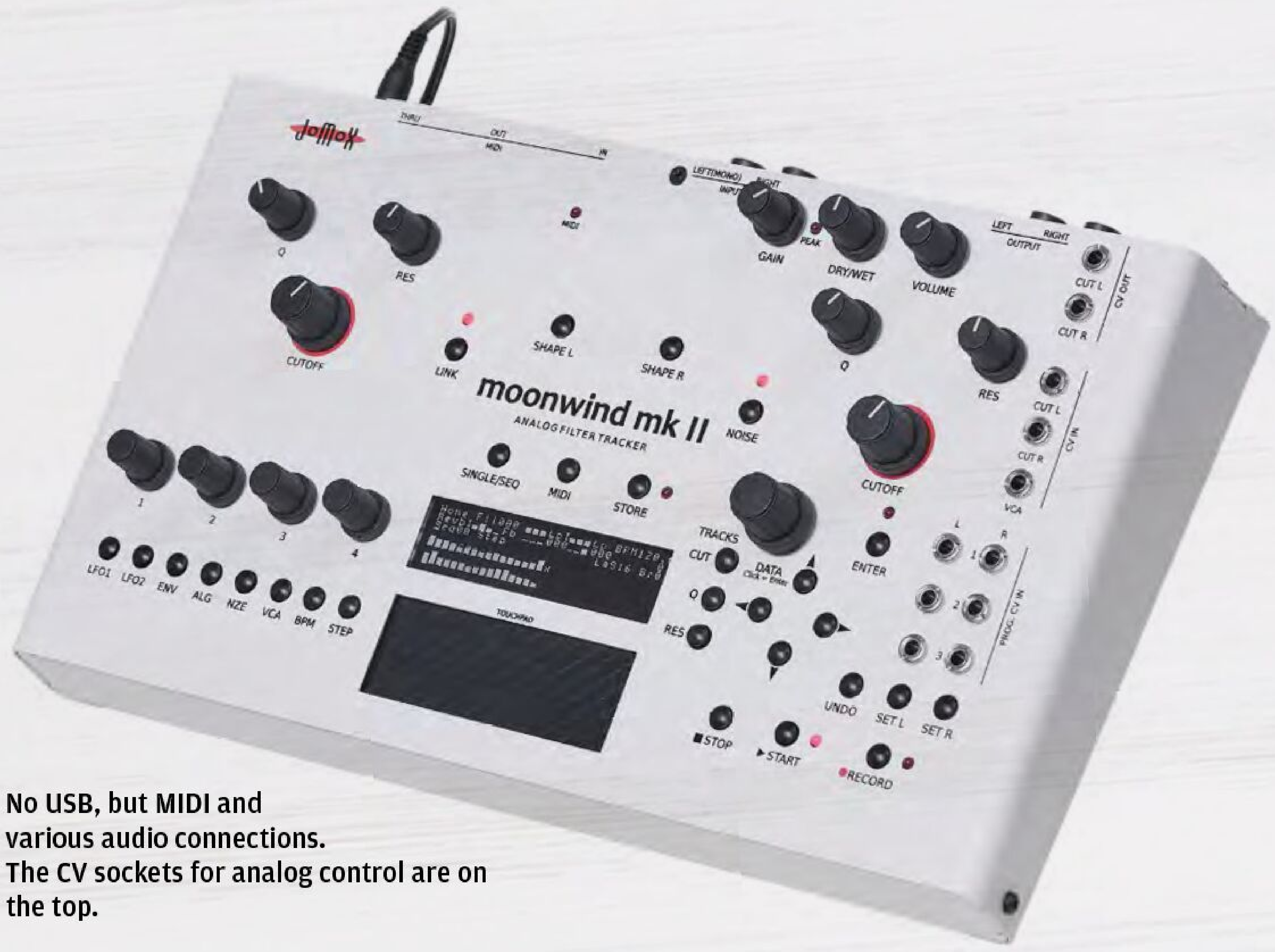
While we‘re on the subject of transitions, the last step is to glue the two parts of the drop together into one. To do this, create an automation of the **Cutoff** parameter so that the Filter slowly opens up towards the second part of the drop. Also use effects such as **Risers**, **Uplifters** or **Exhausts** for smooth transitions.

Test: Jomox Moonwind Mk II

Jomox Moonwind Mk II is the new version of the analog stereo filter that first appeared on the market over a decade ago. Compared to the first version, it features a new, white-painted metal housing with touchpad and larger display, as well as a number of other fundamental innovations. **by Jan Wilking**

Features

- Analog stereo filter processor
- 2 Multimode filters (LP/HP/BP/Notch)
- Step sequencer (64 steps)
- Cutoff, resonance and Q-factor recordable
- LFO and envelope follower per filter
- Extensive CV/Gate options
- Digital effects board
- Touchpad
- 256 x 64px OLED display



No USB, but MIDI and various audio connections. The CV sockets for analog control are on the top.

Facts

Manuf: Jomox
Web: www.jomox.de
Distrib: Retailer
Price: 849 Euro

- ▲ Analog stereo filter
- ▲ Different filter types
- ▲ Characteristic sound
- ▲ Feedback loop
- ▲ Multitrack sequencer
- ▲ Internal effects
- ▲ Touchpad control
- ▲ Flexible CV integration

Sound: ■■■■■◧
Operation: ■■■■◧□
Price/Perf: ■■■■■□

Total: ■■■■■□

Alternatives

Elektron Analog Heat+FX
919 Euro
elektron.se

Sherman Filterbank 2
759 Euro
sherman.be

Erica Synths Acidbox III
459 Euro
ericasynths.lv

Moonwind Mk II offers two analog filters with Cutoff, Q and Resonance. All three can be modulated per step using the sequencer - and the whole thing per channel. The sequence is now entered using an X/Y pad, with which the values can be entered by swiping your finger over them. Another practical enhancement: More parameters can be shown in the new display.

Anyone working with analog equipment will be delighted with the CV connections. The Cutoff Frequency of the filters and the amplifier can be controlled via three CV inputs. Six CV Inputs are also available for modulation. And in the other direction, the sequences for the Filter Frequencies can be output as CV signals to control external equipment. If you are not making music with CV-compatible equipment, you can control all the important parameters via MIDI.

Another new feature is its own sound generation with Oscillator, Noise and Modulators. This allows you to create interesting effects and drone sounds without additional equipment, or mix the internally generated sounds with the signals present at the audio inputs. The inputs can be used as Hi-Z, so you can also connect an electric guitar or bass.

Multimode Filter with LFO

The most important component is, of course, the multimode filter based on OTA. Both filters can be operated individually as lowpass, bandpass, highpass and notch and can be interconnected. For live tweaking, the cutoff, resonance and filter quality (Q) parameters, which are the most important in terms of sound, have their own rotary controls on the surface of the desktop device for direct access. The Filter Frequency can also be controlled automatically using an LFO with various waveforms (Sawtooth Up/Down, Triangle, Sine, and several Square Waveforms). Each filter also has an Envelope Follower generated from the audio signal. Or you can trigger the internal Envelope via MIDI note - a function that we sorely miss on the Elektron Analog Heat, for example.

Multitrack sequencer

However, the most interesting modulation source is the Sequencer. It can record Cutoff, Resonance and Q-factor separately for each step and filter and offers a maximum of 64 steps per pattern (4 bars with 16 steps). The Clock Divider allows a resolution of up to 32ths per clock. The setting can be made using the Touchpad. You select the steps via the X-axis and the respective value via the Y-axis.
However, due to the high edges around the Touchpad, it is difficult to reliably reach the lower and upper values. When using the Touchpad to modulate the two Filter Frequencies and Resonances, however, this plays less of a role; the parallel live tweaking of both filters simultaneously with just your finger is a lot of fun. Filter movements can even be recorded.

The built-in effects can also be controlled using the Touchpad, but can also be adjusted in detail using the controls. The digital effects board has 15 algorithms, including analog feedback for exciting and wacky variations. In addition to the standard delay, reverb, chorus and flanger, there are also more wacky FX creations to marvel at.

Verdict

Moonwind MKII impresses with a very analog filter sound, especially at higher gain settings. This allows you to breathe more life into digital synthesizers and plug-ins, in particular. But experimenting with Drums, Guitars or even Vocals also produces interesting and unique results, whereby Moonwind is less aggressive and destructive than a Sherman Filterbank. Extensive CV integration, as well as LFO, Envelopes and, above all, the multi-track Sequencer bring a lot of movement into play.

There are a few problems with its operation. Although hotkeys allow faster access to important settings, its operation requires some familiarization and, in our opinion, is not always optimal. ⁘

More Info

Solid Stage Logic

SSL 2+ MK2

The SSL 2+ MK2 is the latest version of the compact and powerful audio interface. With barely any external changes, there are some interesting technical improvements under the hood. This audio interface is primarily aimed at musicians, producers and content creators who are looking for a space-saving and portable format. With two combined XLR/TRS inputs, four line outputs (DC-coupled!) and two headphone outputs with separate level controls, the interface offers a wide range of connections in a small space, making it ideal for hybrid setups and shared recordings. New additions include MIDI inputs and outputs for direct integration of external synthesizers and drum computers.

The instrument inputs have been moved to the front of the new model, which makes it easier to wire up quickly. Two very good microphone preamps ensure the transparency and detail typical of SSL, supported by solid 32 bit / 192 kHz AKM AD/DA converters and +48 V phantom power for the use of high-quality condenser microphones.

A particular highlight of the SSL 2+ MK2 is the “Legacy 4K” circuit, which is designed to recreate the characterful sound of the SSL analog consoles and give recordings more depth and presence. This is achieved by adding harmonic distortion and boosting the high frequencies, works really well in practice and provides a warm and present sound without the need for any additional plug-ins.

It can be operated directly and easily on the device, so there is no need to use an app. In practice, the interface impresses with low latency, practical mix functions for direct monitoring and a loopback function to record audio signals directly from the computer (such as YouTube in the browser) without time-consuming routing.

Verdict

SSL 2+ MK2 is a rock-solid compact audio interface for Musicians, Producers and Content Creators. In addition to the proven SSL sound, it offers all the important connections and functions in a stylish and robust housing. In the practical test, it impressed with its low latency, high resolution and simple operation. The price is more than reasonable for what it offers.

Manuf: SSL
Web: solidstatelogic.com
Distribution: Retailer
Price: 309 Euro

Rating: ■■■■■◧

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Test: Torso T-1 Sequencer

Torso T-1 is a flexible hardware sequencer that is based on a Kickstarter project and shows its strengths especially in live performance. With the 18 encoders and 23 mini pads, you have direct access to all parameters and can intuitively create sequences with up to 256 steps. **by Jan Wilking**

Features

- Hardware sequencer
- 16 tracks
- Euclidean drum sequencer
- Monophonic or polyphonic note sequencer
- 18 push encoders and 23 illuminated pads
- Memory slots for 16 patterns with 16 tracks each
- USB-C & MIDI In/Out/Thru
- CV modulation input
- 4 CV outputs and 2 gate outputs

Facts

Manufacturer: Torso
Web: torsoelectronics.com
Distrib: Specialty
Price: 598 Euro

- ▲ High-quality and robust workmanship
- ▲ Optimized for live performance
- ▲ Flexible connection options
- ▲ Classic or generative sequences
- ▲ 16 Tracks, upto 256 Steps
- ▲ WiFi with Ableton Link
- ▲ Configurable MIDI-CC

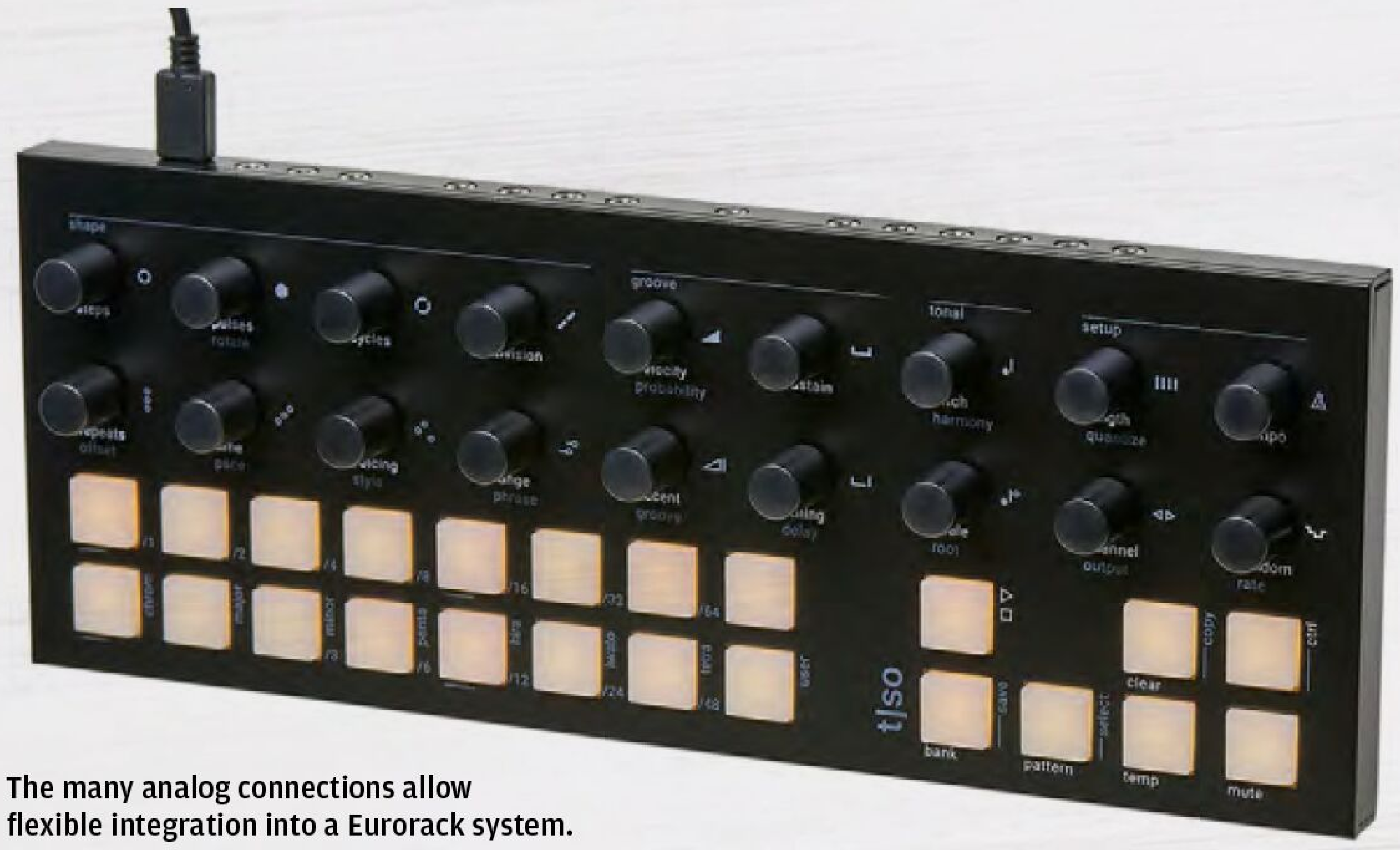
Workmanship:	■■■■■■
Operation:	■■■■■◧
Price/Perf:	■■■■■□
Total:	■■■■■◧

Alternatives

Oxi Instruments One
145 Euro
oxiinstruments.com

Squarp Instruments Hapax
1,285 Euro
squarp.net

Arturia Beatstep Pro
249 Euro
arturia.com



The many analog connections allow flexible integration into a Eurorack system.

The T-1 makes an excellent impression as soon as it is unpacked. The housing is made of sturdy aluminum and the 18 click-stop endless controls with push function also feel very high-quality. The 23 multi-colored illuminated Mini Pads/Buttons also offer a pleasant feel and a clean pressure point.

Despite the compact format, no expense has been spared on connections. MIDI devices can be connected via the IN/OUT/THRU or via the USB-C port (which also provides the power supply). And for analog equipment, there are 4 CV outputs, 2 gate outputs, a CV mod input and sync input and output including reset for synchronization. In combination with a modular system, this opens up a whole host of possibilities. Synchronization via Ableton Link is even possible using the built-in WiFi.

16 Tracks, up to 256 Steps

T-1 offers 16 tracks with 16 steps per cycle (=bar). With up to 16 cycles, the maximum length is, therefore, 256 steps. T-1 can be used like a classic step sequencer. You determine the length of the cycle using the controls and enter the steps to be triggered using the 16 illuminated buttons, which also function as chases. Pitch, Octave changes, Velocity, Accents and Repetitions can be set intuitively using the controls. The TMP Function is particularly useful for live performances. You can use it to set a snapshot, then wildly twist your sequence for fills or the ultimate drop and switch back to the original pattern at the touch of a button.

You can use the 16 tracks for individual drum sounds such as Kick, Snare and Hi-Hat. Or for Basslines or Leads. Or for polyphonic patterns, with the Scale Function ensuring harmonious results. All of these can be combined with each other, so that T-1 can also create complete tracks as a central element.

Euclidian Sequencer

As an alternative to classic step programming, generative sequences are also possible. To do this, use the first controller to set the length and the second controller to set the number of pulses. In principle, this corresponds to the Euclidean Rhythm, which can be found in newer Elektron devices, but is a little more intuitive here.

As with the Elektron Grooveboxes, the T-1 can also perform parameter locks, both for internal parameters such as Pitch and Ratchets, as well as for external synthesizer parameters via MIDI-CC. This is because the T-1's controllers can also send selected MIDI controllers and, therefore, change the frequency of a connected synthesizer by step, for example. The Random Function, which allows you to apply random changes to any parameter for more variation, can also modulate both internal and external parameters.

Optimized for the Stage

The fascinating thing about the T-1 is that the sequence is never really finished. The controls always invite you to tweak new variations. To do this, you can loop individual parts of the sequence or mute parts of the sequencer.

The MIDI effects can also be applied directly to external MIDI and not just to the internal sequence, so that a connected MIDI keyboard multiplies the performance possibilities in real time. You always have direct access to all functions without having to go through a lengthy menu search. A few shortcuts need to be practiced at the beginning. Once you really get into the flow, you will quickly be rewarded with lots of interesting sequences and variations.

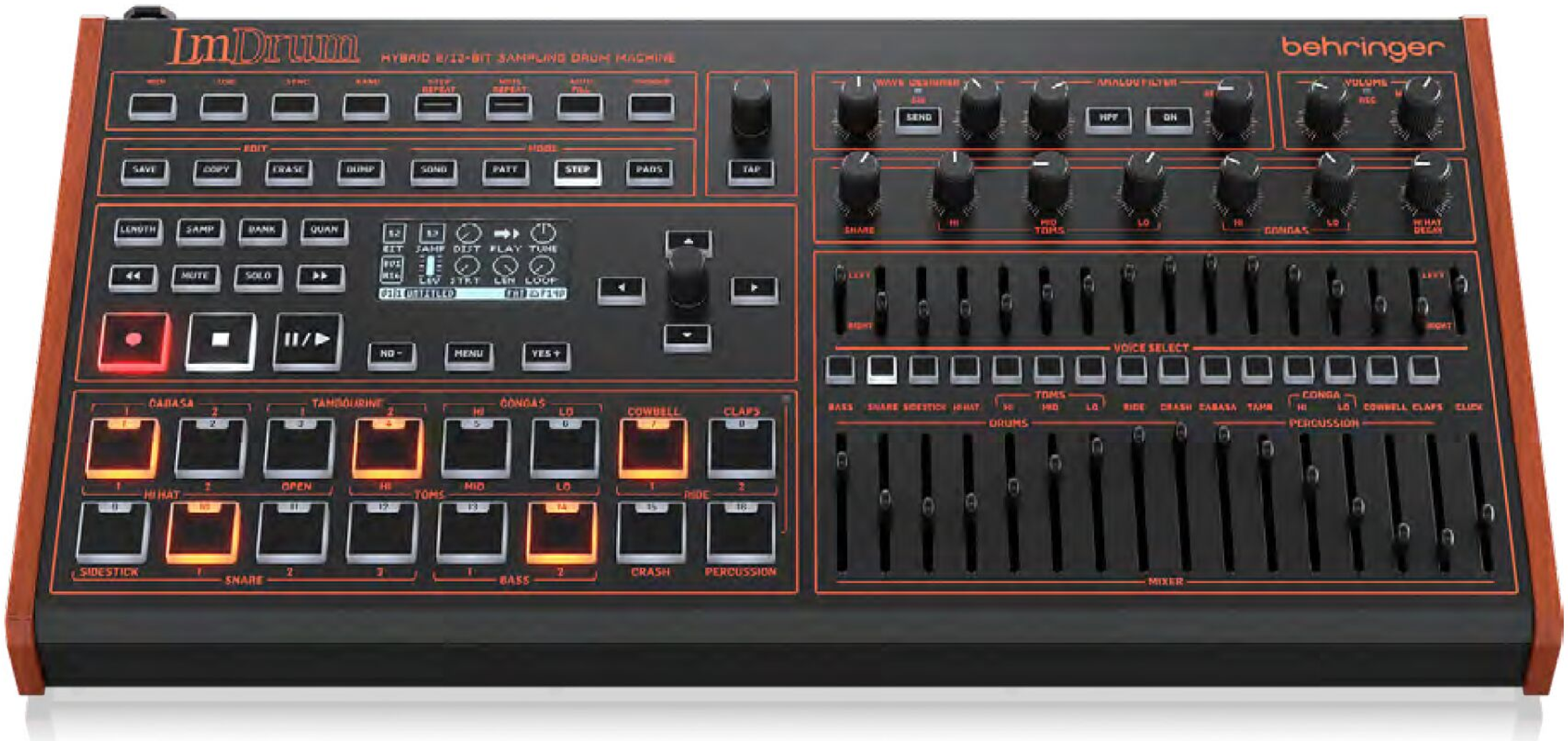
Verdict

Torso T-1 is an intuitive and inspiring hardware sequencer. This compact device has a high-quality and robust design, offers both classic and generative sequencer functions and, like a synthesizer, invites you to tweak in real time. The range of functions is comparable to the Elektron Grooveboxes, but the access is more direct and invites more playful experimentation and live performance. Combined with its connection options, especially in the analog range, the T-1 can even serve as the central unit in a live setup or be the perfect partner for a modular jam. ⁘

More Info

Test: Behringer LM DRUM

What do you get when you cross a classic drum machine with a modern groovebox? Behringer shows us with the LM Drum. by Jan Wilking



Features

- Digital drum computer
- 16 instruments
- Sampling engine with max. 12 bits
- 64-step sequencer
- Wave designer
- Dual mode analog filter
- 16 individual outputs (3.5mm)
- MIDI/USB
- Dimensions (W x D x H): 479 x 264 x 73 mm

It took over three years for Behringer‘s homage to Roger Linn‘s legendary drum computer to go from announcement to series production. But the LM DRUM also offers a few surprises and goes far beyond the functionality of the original, which played a key role in shaping the sound of the 80s and helped superstars such as Michael Jackson and Prince, but also Billy Idol, Human League and Tears For Fears to create distinctive beats. Behringer‘s replica of the LinnDrum not only offers an authentic 8/12-bit sample engine with the typical 80s drum sounds of the LM1, LM2 and LM9000. Obviously inspired by the Elektron Digitakt, you can also record your own samples and use the sophisticated sequencer to create characteristic beats with a special vintage charm.

Direct access

The housing of the LM DRUM, with dimensions of 498 x 265 x 77mm, corresponds to the other drum computers from Behringer (RD-8 and RD-9), and is a cost-saving secondary use. However, the design is clearly based on the LinnDrum (often referred to as the LM-2). The right side is dominated by 32 faders with which you can adjust the volume and panorama of all instruments. Such jam-friendly equipment with direct access to all tracks without any menu diving is rare these days! Above this you will find the controls for tuning the snare, toms, congas and the decay time of the closed hi-hat, which are also taken from the LinnDrum.

16 pads, can also be used as a keyboard

There are 16 illuminated pads at the bottom left. You can use these to trigger the instruments, and velocity dynamics are also implemented. On our test device, however, the pads only reacted from a certain velocity. Alternatively, the drum sounds can also be played via USB or MIDI with an external keyboard or your DAW. Since all sounds can also be played chromatically after an initial firmware update, the pads can also be used as a mini keyboard with an octave and melodies and bass lines can be recorded. When recording is activated, everything you play on the pads is recorded in real time, including velocity dynamics.

Step sequencer with polyrhythms

But step programming is also possible, the pads are then used to set steps in the sequencer. The sequencer becomes a classic running light sequencer with up to 64 steps per pattern. The basic operation is child‘s play: you select the instrument with one of the instrument buttons above the volume faders on the right and then use the pads to activate the steps that are to be triggered. Instruments such as kick, snare or hi-hat have different volume levels that can be programmed by pressing the pad a second or third time. A nice thing about this is that each of the up to 16 tracks can have its own length. For example, kick and snare can provide a static 1-bar 4-on-the-floor beat as a basis, while the hi-hat with 10 steps and the sidestick with 6 steps provide constant rhythmic variations.

> » It‘s just fun to jam with the LM DRUM and to tweak and mix the sound and the beat directly. «

Facts

Manufacturer: Behringer
Web: behringer.com
Price: 398 Euro

- ▲ True-to-original sound
- ▲ Recording of your own samples
- ▲ Tuning for all instruments
- ▲ Chromatic playability
- ▲ Direct access to sound/ sequencer
- ▲ Classic sequencer with extras
- ▲ Wave designer
- ▲ Analog filter
- ▲ Individual outputs

Features:	🟥🟥🟥🟥🟥◧
Sound:	🟥🟥🟥🟥🟥◧
Price/perf.:	🟥🟥🟥🟥🟥🟥
Rating:	🟥🟥🟥🟥🟥◧

Alternatives

Elektron Digitakt
949 Euro
elektron.se

Roland TR-8S
649 Euro
roland.com

Korg Drumlogue
444 Euro
korg.com

LmDrum
behringer

64 faders provide direct access to volume and panorama of all instruments.

Probability, Repeat & Co.

Polyrhythms are just one of the modern features that provide variety. You can also enter short flams or repeats of selectable length for each step. And you can individually set for each step of each track whether it should always sound or only randomly with a globally adjustable probability. By holding a pad, you can also transpose the instrument up or down at this point. And of course you can also set swing.

With these options, even supposedly simple 1- or 2-bar patterns can run across the entire track without becoming boring. And you have to give the LM DRUM credit for one thing: it grooves like crazy!

Real-time effects

Especially since Behringer also includes some features for real-time adjustment. With the trigger button, parts of the pattern or just one instrument can be looped or repeated at the touch of a button, with an adjustable speed. As soon as you release the button, the beat continues as normal. You can also select another pattern as a fill, which is played once and then switches back to the original pattern. And with the 16 instrument buttons, you can solo or mute one or more tracks and then start all tracks again after a break with just one button press.

Digitakt sends its regards

Not only the modern features of the sequencer are often reminiscent of Elektron grooveboxes, the display and the font and symbols used there are also obviously inspired by Digitakt. The same applies to the not particularly intuitive sound management. There are 16 banks with 128 samples each. Each pattern can access sounds from one bank, which is basically the sound pool. In the delivery state, bank 1 contains the samples from the LM-2, bank 2 contains the LM-1, bank 3 contains the LM-9 and the other banks contain, for example, Simmons SDS samples. If you program a classic Lindrum pattern with bank 1, but would rather use an LM-1 snare or your own sample from another bank instead of the LM-2 snare, you must first copy this sample into bank 1 before you can use it in the pattern.

Sound editing

What‘s interesting about exchanging sounds is that each instrument track has different sound characteristics. The slots for kick, snare or sidestick have a crisp attack and more high frequencies, while toms or congas, for example, sound a little duller. And with the closed hi-hat, the starting point of the sample varies a little with each trigger, which makes for a livelier sound, but can also be switched off. For each sound, you can set the pitch, direction, decay time, length and volume via the menu and even add a little drive (=distortion). And for each instrument, you can individually reduce the number of bits, from 12 bits to one bit for digital destruction.

Sample import

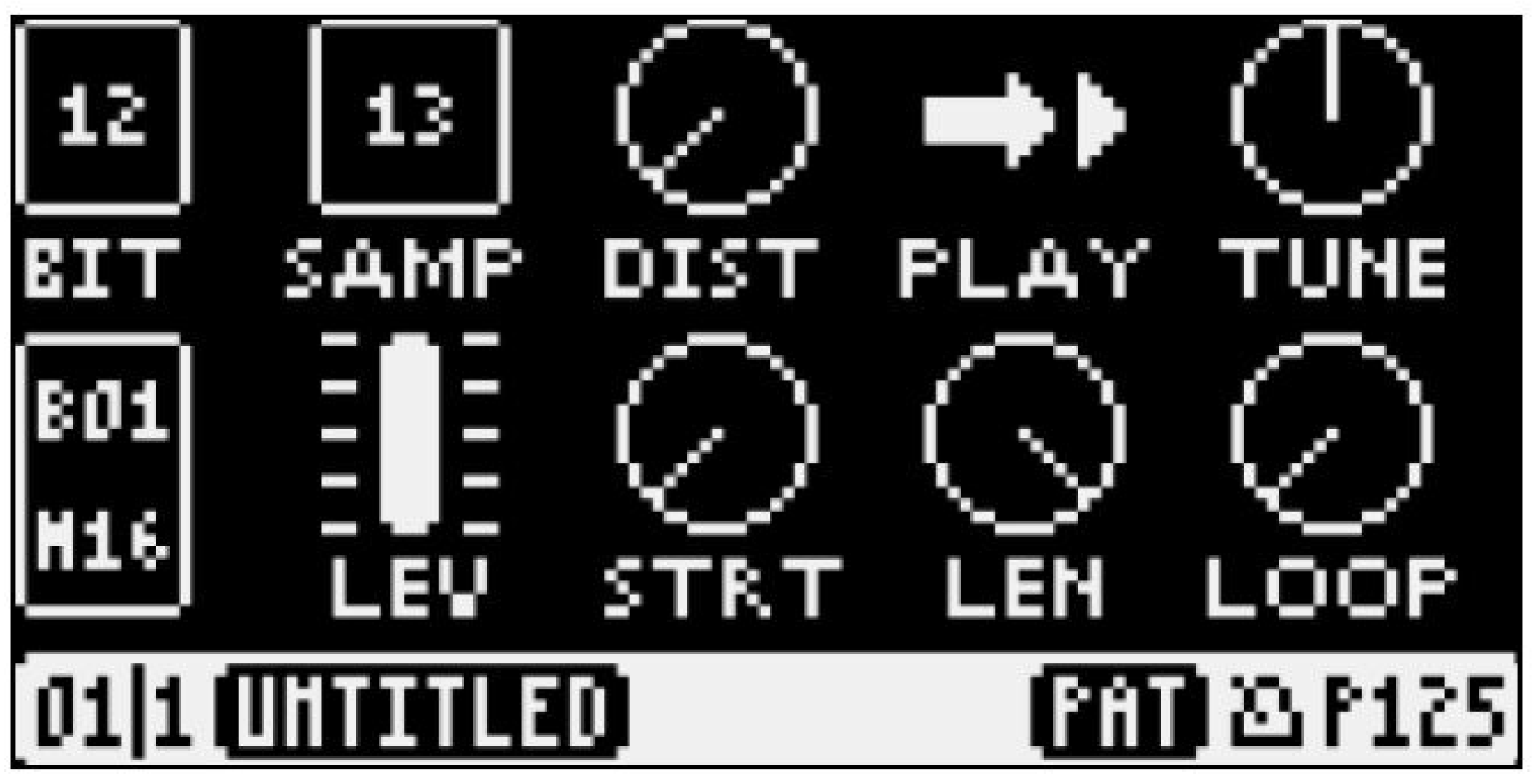
But even in the highest possible resolution of 12bit and 24 kHz, the LM DRUM has the digital vintage sound that makes old digital samplers like the Akai S-950 or the early MPC so popular, especially for drums. Similar to an analogue tape machine, the supposed limitations ensure a particularly powerful and assertive sound. It‘s all the better that you can also import your own samples into the LM DRUM. This is quite easy to do using the Synthtribe app, which automatically converts higher-resolution samples and puts them into mono format. Because like the LinnDrum or the Digitakt 1, the LM DRUM cannot play stereo samples. When we first tried TR-909 samples, the LM DRUM immediately impressed with its distinctive sound and driving groove.

Direct sampling

But the LM DRUM can actually record itself, and it‘s actually quite straightforward. Connect the sound source to the audio input, press Record to start and stop recording, and the sample is ready. Since the waveform is shown as a graphic on the display, the start and end points can also be easily adjusted if necessary. The sample can then be saved in any bank. The total memory is 14.17 MB, which corresponds to 310 seconds at 12bit/24kHz. That may seem like little by today‘s standards, but drum

LmDrum
HYBRID 8/12-BIT SAMPLING DRUM MACHINE
behringer
KORG volca keys

Quite big! LM DRUM compared to the Korg Volca.



Not only the display, but also many functions are very reminiscent of Elektron Digitakt.

You can import/export samples and edit and save patterns using the Synthtribe app.

samples in this resolution in mono take up very little storage space, and depending on the length, hundreds of your own samples can easily fit into the LM DRUM. Theoretically, you could also record or import short drum loops, but due to the lack of a time stretch function, the tempo would have to be right or the loop would have to be tuned accordingly.

Vintage sampler charm

Since every instrument can also be played tonally via MIDI, the LM DRUM also presents itself as an old-school digital sampler. Among other things, we sampled sounds from modern digital synthesizers and plug-ins with the LM DRUM and then played bass lines and melodies with them. This immediately had a completely different sound charm: on the one hand, rough, hard and powerful, but somehow also felt warm and round. Anyone who has ever compared one of the first DX-7s with plug-ins such as NI FM-8 will know the difference in sound. Each instrument has its own DAC, which works with 12 bits or 8 bits, and their special sound character can be clearly heard.

Individual outputs for post-processing

Like all classic drum computers, the LM DRUM sounds a little weak at first, at least with the original LinnDrum samples. Anyone who has a real TR-909 or TR-808 unprocessed in front of them for the first time will be surprised that it doesn't boom and bang like the famous hits. Post-processing is the magic word here. With the LinnDrum, a downstream master compressor can work wonders, but individual post-processing of individual instruments is of course even better. And here the back panel delights us with 16 individual analog outputs so that each instrument can be given its own effects (compressor, equalizer, reverb, etc.).

Wave designer and analog filter

LM DRUM also has built-in effects that are already familiar from RD-8/9. There is a transient designer that can be used to shorten or lengthen the attack and sustain phases separately. Crisp kicks and banging snares are just as possible as soft toms. There is an analog filter with adjustable frequency and resonance that can work as a low-pass or high-pass. The filter frequency can vary per step, although the setting per step is a bit fiddly. Or you can record the filter movement in real time using the controller. The effects are global, however, so they cannot be set individually for each track. You can, however, select which instruments should be processed by the wave designer and filter. Personally, we would have preferred reverb/delay as a send effect.

LM DRUM vs. Digitakt

Due to some similarities, we asked ourselves a few times during the test whether a Digitakt fed with LinnDrum samples would be an alternative. Digitakt has a higher resolution, more memory, more built-in effects and also offers more modulation and adjustment of sounds and loops as well as an even more sophisticated sequencer. Thanks to Overbridge, it runs synchronously with the DAW with just one USB cable and transfers the instruments individually to the computer for post-processing via USB audio. This saves a lot of cabling. Digitakt is also much more compact and version 2 can also handle stereo samples, but Digitakt 2 is also more than twice as expensive, while Digitakt 1, at least used, is sold for a similar price to a new LM DRUM. However, the operation is quite complicated and requires some training time.

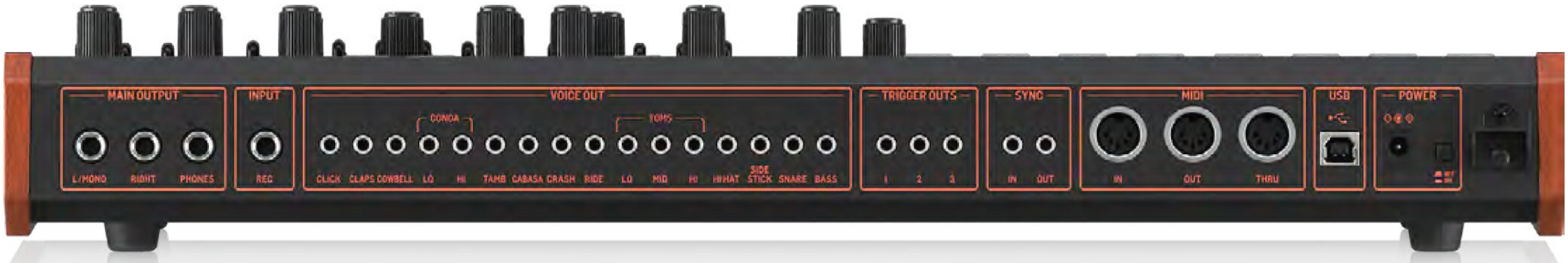
The advantage of the LM DRUM is clearly the direct access, which invites you to jam. Volume, panning, solo, and mute of all instruments are directly accessible at any time, and there are also additional controls for tuning and decay of important instruments. The second special feature is the sound. LM DRUM has the typical vintage digital sound that you just can't get with bit reducer effects. And in a more hardware-based studio, the individual analog outputs are an important argument.

More info

VERDICT

If you like the special sound of early digital sound generators, we think the LM DRUM is a must-buy. For under 400 euros, you not only get the classic LinnDrum sounds, but also a multi-timbral vintage sampler with signature sound on top. And the sequencer also offers many interesting extras for varied beats in addition to the easily accessible basic functions.

The icing on the cake, however, is the direct access to all 16 instruments at the same time thanks to lots of faders, controls and buttons. It's just fun to jam with the LM DRUM and tweak and mix the sound and beat directly without having to navigate through menus. This is not only a real blessing in the rehearsal room or on stage, but also a refreshingly inspiring alternative in the computer-based studio, especially since the LM DRUM really grooves in combination with the internal samples! ⁘



MIDI, USB, individual outputs, trigger outs and audio input: the connections on the back leave little to be desired.

Test: Modal Electronics Carbon8

The new Modal flagship combines various elements of the Argon 8 and Cobalt 8 and impresses with flexible sound generation with "analog" digital sound with a lot of independence. by Jan Wilking

Features

- Digital synthesizer
- 8-voice polyphony
- 37 keys with aftertouch
- 2 oscillators per voice
- 56 complex digital core waveforms
- XCore modifiers
- 34 resonant filter types
- 512 step sequencers
- 3 effect processors

Facts

Manufacturer:
Modal Electronics
Web:
modalelectronics.com
Price: 989 Euro (Carbon8); 849 Euro (Carbon8M)

▲ Independent sound
▲ Flexible oscillators
▲ Lots of good-sounding filters
▲ Well thought-out operation
▲ Robust hardware
▲ Very good keyboard with aftertouch
▲ Sequencer with 512 steps
▲ Parameter record
▲ 3 effects at the same time
▼ Only 8 modulation slots

Sound: ■■■■■◧
Processing: ■■■■■◧
Price/perf.: ■■■■■☐

Rating: ■■■■■◧

Alternatives

Korg multi/poly
from 849 Euro
korg.de

ASM Hydrasynth
from 565 Euro
ashunsoundmachines.com

Arturia MiniFreak
505 Euro
arturia.com

With the desktop version you have to do without the good Fatar keyboard and some controls.

The 8-voice polyphonic digital synthesizer Carbon 8 was shown at the Superbooth in Berlin a good two years ago. Shortly afterwards, Modal had to file for bankruptcy, which delayed delivery. Now the financial situation seems to have stabilized, the Carbon 8 is widely available and we have tested whether the wait was worth it.

Robust and stylish

Outwardly, the Argon 8, Cobalt 8 and Carbon 8 look like two peas in a pod, apart from the different paintwork and labeling. To reduce costs, the same housing is reused, and in this case, that's a good thing. The robust housing, made primarily from thick steel and aluminum, has proven itself to be almost indestructible in the past. And the compact synthesizer not only feels very high-quality, but also looks really stylish in its gray metallic paintwork.

Very good keyboard

Thankfully, no expense was spared on the keyboard as the interface between sound generation and musician. The 37-key keyboard is a FATAR TP9/S with full-size keys that supports velocity and aftertouch and provides an above-average feel. Since the modulation wheel and pitch bender were dispensed with in favor of a joystick, the width of the synthesizer could be limited to the specifications of the keyboard. At approx. 55 x 10 x 30 cm, the Carbon 8 is just as compact as the current Korg series with Wavestate, Modwave and Multipoly, although it offers a reasonable full-size keyboard. And there is really nothing to complain about in terms of workmanship. Like the Argon and Cobalt, the Carbon is also available as a desktop version and it is likely that a large version with 61 keys will follow. However, with the Carbon 8m you will have to do without some of the controls. If there is no acute lack of space, we would recommend the 3-octave version.

Encoder, graphic display

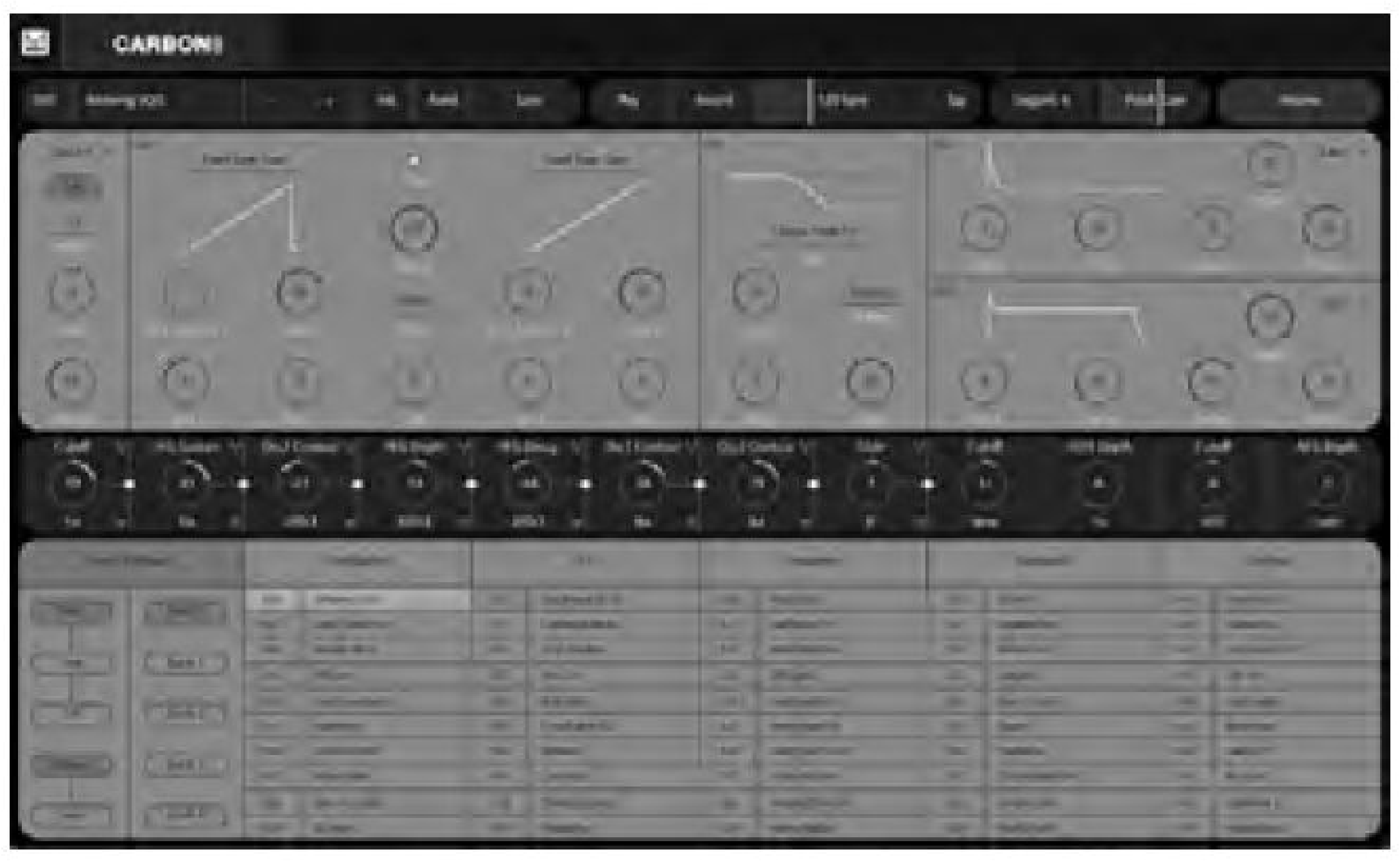
The controls are designed as encoders, so there is no need to worry about value jumps after changing presets. The endless controls are pleasantly large and easy to grip, and there is even a really large control for the filter frequency. The values can be read off the centrally located OLED display. In addition to parameter values, it can also display graphics such as the currently set envelope curve or the waveform in real time.

Well thought-out operation

In addition to the controls, there are several illuminated buttons available. Most controls and buttons have a secondary function that can be accessed via Shift. These additional functions are printed on the panel, so you don't have to learn them by heart. Overall, the operation is very practical, with many useful shortcuts. And if you already know the Argon or Cobalt, you can get started right away without much getting used to it.

USB for MIDI and editor

All connections are on the back. Power is supplied via an external power supply. The USB connection is used to connect to a computer. Carbon is class-compliant, so it works without special drivers with



The free app allows you to edit the sound generator and sequencer and save and load sounds.

iOS devices such as iPad and sends and receives MIDI via USB. It also enables communication with the free Modal app, which runs standalone or as a plug-in on Windows, Mac and iOS and enables convenient operation of all functions, graphical editing of the sequencer and saving and loading of sounds with the track in the DAW (Total Recall).

Alternatively, there are two classic MIDI sockets in DIN format.

Analog connections

The input and output for analog sync are also pleasing, allowing synchronisation with other hardware such as drum computers. A 3.5mm stereo jack input is conveniently located right next to it, so that the audio signal from these small synthesizers or even a smartphone can be looped into the Carbon 8 and processed with the internal effects. This can save an additional mixer in a small live setup.

Carbon 8 has two pedal connections for expression and sustain as well as a stereo audio output and a headphone output.

Digital sound generation

The sound generation is completely digital, a DSP takes over the calculation of the voices. The digital structure has the advantage over purely analog synthesizers of being able to be stored and programmed via app. With 500 editable memory locations, 300 of which are pre-assigned with factory presets, there is enough space for your own creations. And with the vintage parameters, component-related inaccuracies of old synthesizers such as oscillator, filter and envelope fluctuations can be reproduced, loosening up the fundamentally very precise digital sound generation a little.

Flexible oscillators

The heart of the Carbon8 are the two high-resolution oscillators (cores). They offer a selection of 18 algorithms and 38 wavetables, which can be further adjusted using the contour control. If you have selected one of the 56 waveforms for each core, you have an additional 18 XCore modifiers at your disposal, which can handle wave folding, waveshaper, ring modulation, hard sync, phase distortion and bit crushing, among other things. The two cores enable very diverse and complex sound spectra at the oscillator level with just a handful of parameters, from nasty and aggressive sounds to bone-dry leads and hard basses to interesting Ambient atmospheres and wonderfully sparkling arpeggios.

Multimode filter with morph function

The various algorithms can produce very transparent and complex overtone-rich sounds, which is why special emphasis was placed on subtractive post-processing by the filter. The filter section has always been one of the strengths of modal synthesizers, and this also applies to the Carbon 8. The multimode filter offers 34 different filter types: In addition to two 12 dB state variable models, there are six dual peak variants and 26 ladder filters in the Moog style, which are available as low-pass, band-pass and high-pass with 6, 12, 18 and 24 dB slopes. With the warp parameter, depending on the filter type, you can morph from low-pass to band-pass to high-pass, adjust the distance between the peaks or the filter drive.

Lots of movement

No expense was spared in the modulation area either. Three envelopes, three LFOs and various other sources can be routed to almost any parameter, although the 8 slots of the modulation matrix are a bit tight in our opinion.

And there is also a sequencer on board, with a generous length of up to 512 steps! It is polyphonic and can even record up to four sound parameters. Recording takes place in real time or step-by-step (with 64 steps). We found the arpeggiator just as inspiring, in which you can also enter your own note sequences including rests and then play and transpose them at the touch of a button. This can also be done in parallel with the sequencer, which can then take over the modulation per step. Unfortunately, you cannot save your own arpeggios, something we had already criticized with Argon and Cobalt.

With the robust metal joystick you can easily change several parameters.

Three effects at the same time

The effects section of the Carbon8 is also quite extensive and an important part of the sound. Three effects can be used simultaneously and can create delays, reverb, flanging, phasing, chorus and lo-fi effects. The reverb in particular has been noticeably improved and sounds really good!

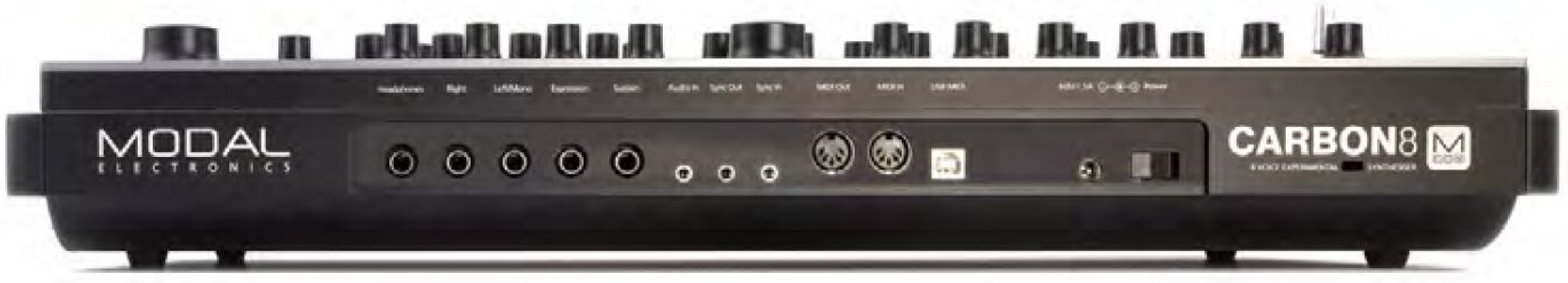
Successful effect combinations can be saved separately and called up at any time.

MODAL
CARBON8

More info

VERDICT

Modal synthesizers have something that many modern synthesizers lack: their own distinctive sound! This also applies to the Carbon 8, the most powerful and most powerful-sounding model in the series to date. „Analog digital sound“ probably describes it best. The Carbon 8 does not want to hide its digital origins, but rather proudly plays off its wide range of sounds. Nevertheless, the sound results radiate a pleasant liveliness, organicity and, if necessary, warmth and, together with the well-thought-out and direct operation, provide a similar level of enjoyment to that of an analog synthesizer. In addition to the sequencer and arpeggiator, there is also high-quality hardware with an excellent keyboard that underlines the character of a real instrument. This extensive equipment is also reflected in the price, which is slightly higher than that of previous modal synthesizers.



Analog sync ports facilitate the synchronization of sequencers & Co. and analog gear.

Test: Eventide Knife Drop

Now Eventide has done it, too! Jack White and Third Man Hardware have already worked together with numerous manufacturers in order to develop music equipment. These have included well-known representatives such as Fender, MXR and Gamechanger Audio. The design principle of all of these collaborations, the black and yellow aesthetic, has also remained true here. Let‘s take a look at the sound in this review. **by Daniel Bock**

Features

- Octave fuzz, synth & low pass filter with resonance, cutoff and envelope
- 6.35mm jack input
- Two 6.35mm jack outputs
- Expression pedal input
- Mono/Stereo & Guitar/Line switch
- Mini USB
- Presets can be saved

Facts

Manufacturer: Eventide
Web: eventideaudio.com
Distrib: Sound Service
Price: 379 Euro

▲ Unique, inspiring sound
▲ Expression pedal input can be used in a variety of ways
▲ Many functions configurable
▼ Operation

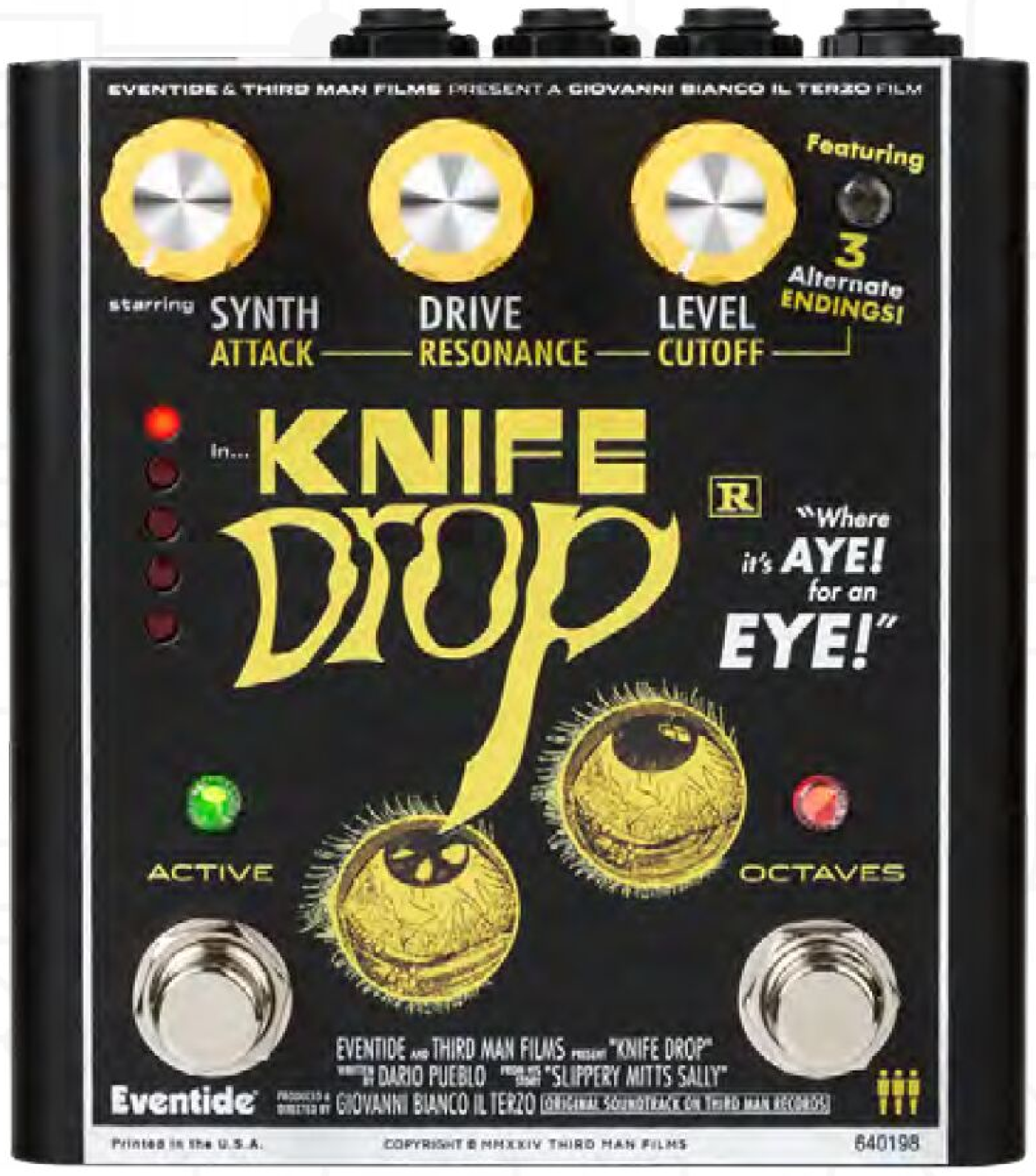
Sound:	■■■■■□
Operation:	■■■■□□
Price/Perf:	■■■■□□
Rating:	■■■■□□

Alternatives

Boss – Synthesizer SY-1
219 Euro
boss.info

Source Audio – C4 Synth
299 Euro
sourceaudio.net

EarthQuaker Devices – Data Corrupter
299 Euro
earthquakerdevices.com


EVENTIDE & THIRD MAN FILMS PRESENT A GIOVANNI BIANCO IL TERZO FILM
Featuring
3 Alternate ENDINGS!
starring
SYNTH
ATTACK
DRIVE
RESONANCE
LEVEL
CUTOFF
in...
KNIFE
Drop
R
"Where it's AYE! for an EYE!"
ACTIVE
OCTAVES
EVENTIDE AND THIRD MAN FILMS PRESENT "KNIFE DROP"
WRITTEN BY DARIO PUEBLO
"SLIPPERY MITTS SALLY"
PRODUCED & DIRECTED BY GIOVANNI BIANCO IL TERZO
ORIGINAL SOUNDTRACK ON THIRD MAN RECORDS
Eventide
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640198

Admittedly, Knife Drop is a real eye-catcher! From the packaging with its little goodies and the overlay cards with the preset settings to the artistic design of the interface, everything is a coherent, visual package.

Wide, Wider, Knife Drop

Behind the design, which is reminiscent of old horror movie posters, lies a pedal that can unleash a veritable thunderstorm of sound. A monophonic, virtual-analog synth, an octave-up or an octave-down, can be added to the input signal. Add an octave-up plus a sub-octave signal. The result is then processed with a low pass filter with envelope and the drive section. This provides a diverse palette of sounds, the majority of which tend towards dirty, brutal and broad. You will easily find settings where you are guaranteed not to recognize your guitar. These unusual sounds are fun if you adjust your playing style a little. The core business is single notes. Sensitive spirits must be strong and should‘nt expect an overly nuanced response or great dynamics. This pedal intervenes too heavily on the sound for this. Instead, there‘s a fat broadside for massive riffing.

The Operation – a movie all of its own

At first glance, this pedal, featuring three knobs and two footswitches, seems simple compared to the other Eventide stompboxes. Its appearance is deceptive, however, as all the controls are assigned twice. This makes it somewhat less user-friendly. In addition to the Mix of synth and input signal, drive for distortion / fuzz and level for the output level, the filter (resonance, cutoff) and envelope (attack) can be adjusted in a secondary function. Five slots are available for saving presets, which are equipped with Jack White‘s sounds out of the box. Unfortunately, these can only be switched via external footswitch or MIDI and not from the device itself. Too bad! Additional adjustments can be made with the H90 control software. The connection is made via mini USB on the back. The fact that this technology is somewhat outdated shouldn‘t be a problem here. The appropriate cable is included and the connection fulfills a multitude of purposes: such as managing presets or changing output routing. The function of the EXP Input can be configured directly on the device. It can record a typical expression pedal that can be used to control one or more parameters all at the same time. For example, you could morph from one sound to another with one pedal movement. Cool stuff! If you prefer to switch the presets using an external switch, you can also set this up here. Use as a TRS MIDI input is also possible.

Application Areas: Guitar, Bass, Synths?

Two switches on the back provide flexibility: mono or stereo via TRS and Instrument or Line Level. This enables use with synths and stringed instruments. Knife Drop impressed me the most on the guitar. The bass works very well in the higher registers. Tracking suffers with low notes and it mumbles and glitches a lot. The effect can also give synths a good boost, but it doesn‘t sound nearly as unusual and original here.

Verdict

Drop Knife is a polarizer. Some will love it, others won‘t be able to do anything with it. It occupies a niche of wacky, very special and unusual sound generators. This limits its areas of application. Such “outsiders” offer creative impulses and inspiring sounds that quickly lead to cool riffs, for example, or provide surprising splashes of color in your arrangement. In continuous use, I can only imagine Knife Drop in a riff-heavy power duo á la The White Stripes, Royal Blood, Roxferry or Massive Hassle. This is exactly where it can play to its strengths, turning the sound of a single instrument into a massive and broad wall-of-sound. The price is no bargain, but is justified for the feature set on offer, with presets, MIDI and many customization options for the functions. Whether you need all of these, however, is up to you to decide. I give it marks for ease of use. However, the sound is a blast! ⁘

Eventide
x
THIRD MAN HARDWARE
PRESETS
PLAY
THROUGH

Demo Video

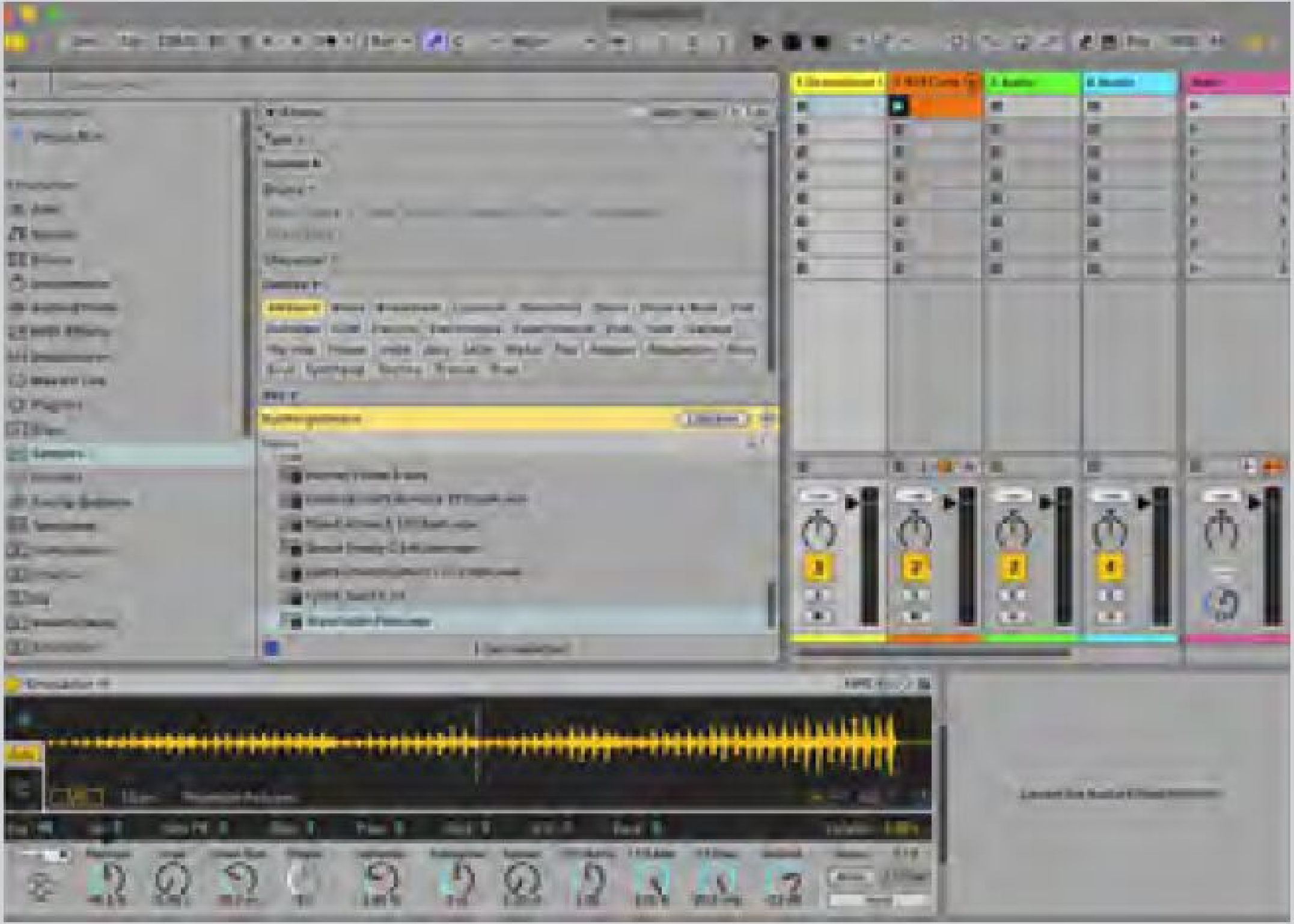
Power Producer: Ableton Push

Break up monotonous sounds

Sound textures are often static and predictable - but with granular synthesis, sounds can be broken up and transformed into dynamic, constantly changing soundscapes. In this workshop, you will find out how this works with the help of the Granulator III and how you can play varied and lively textures live with Push. **by Maya C. Sternel**

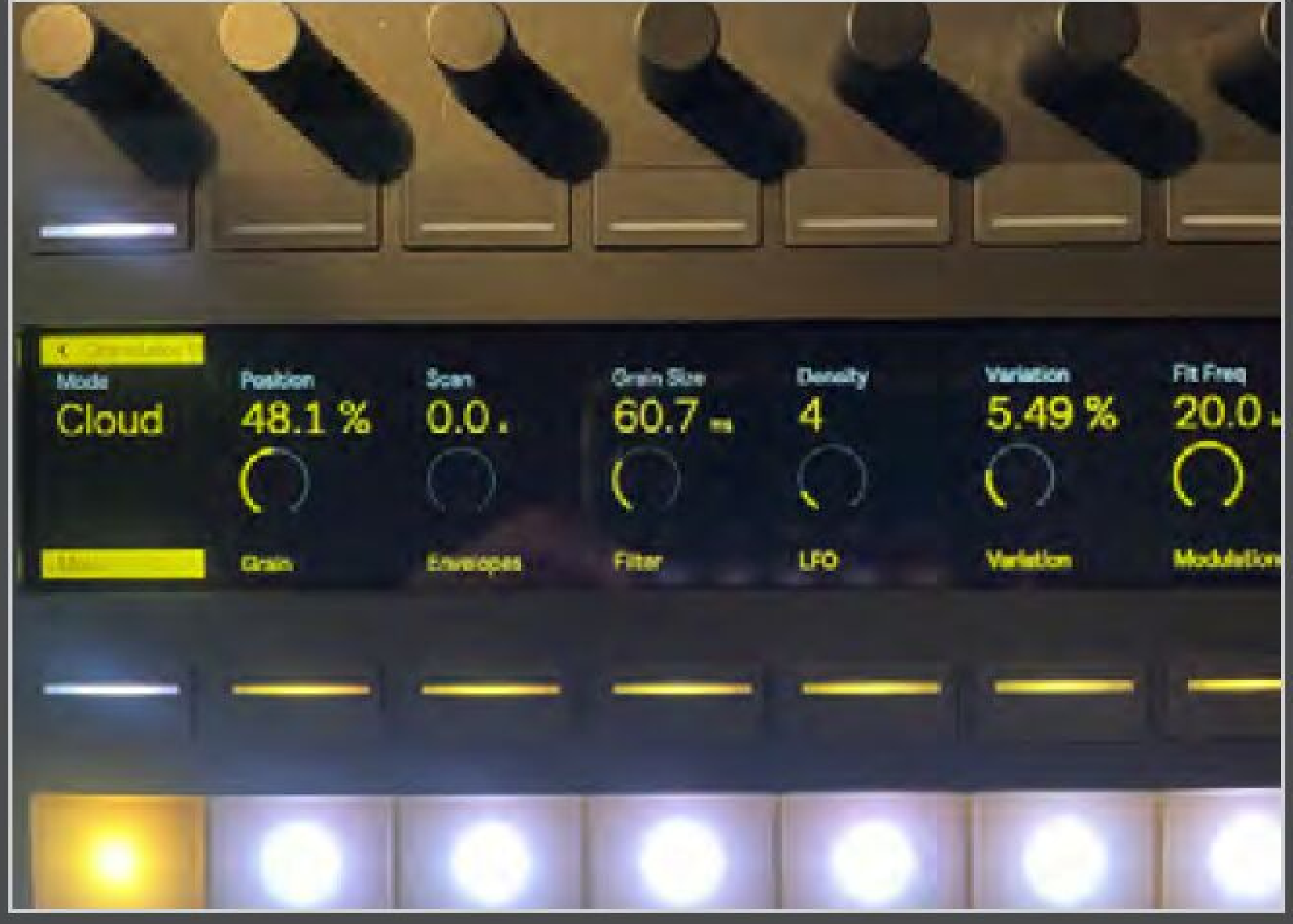
Project info

Material: Ableton Live 12 Suite, Ableton Push 3
Time required: 30 minutes
Content: Create variable and detailed sound textures with Granulator III, select suitable samples, control different sound fragments with individual Push Pads, use additional effects creatively.
Difficulty: Advanced



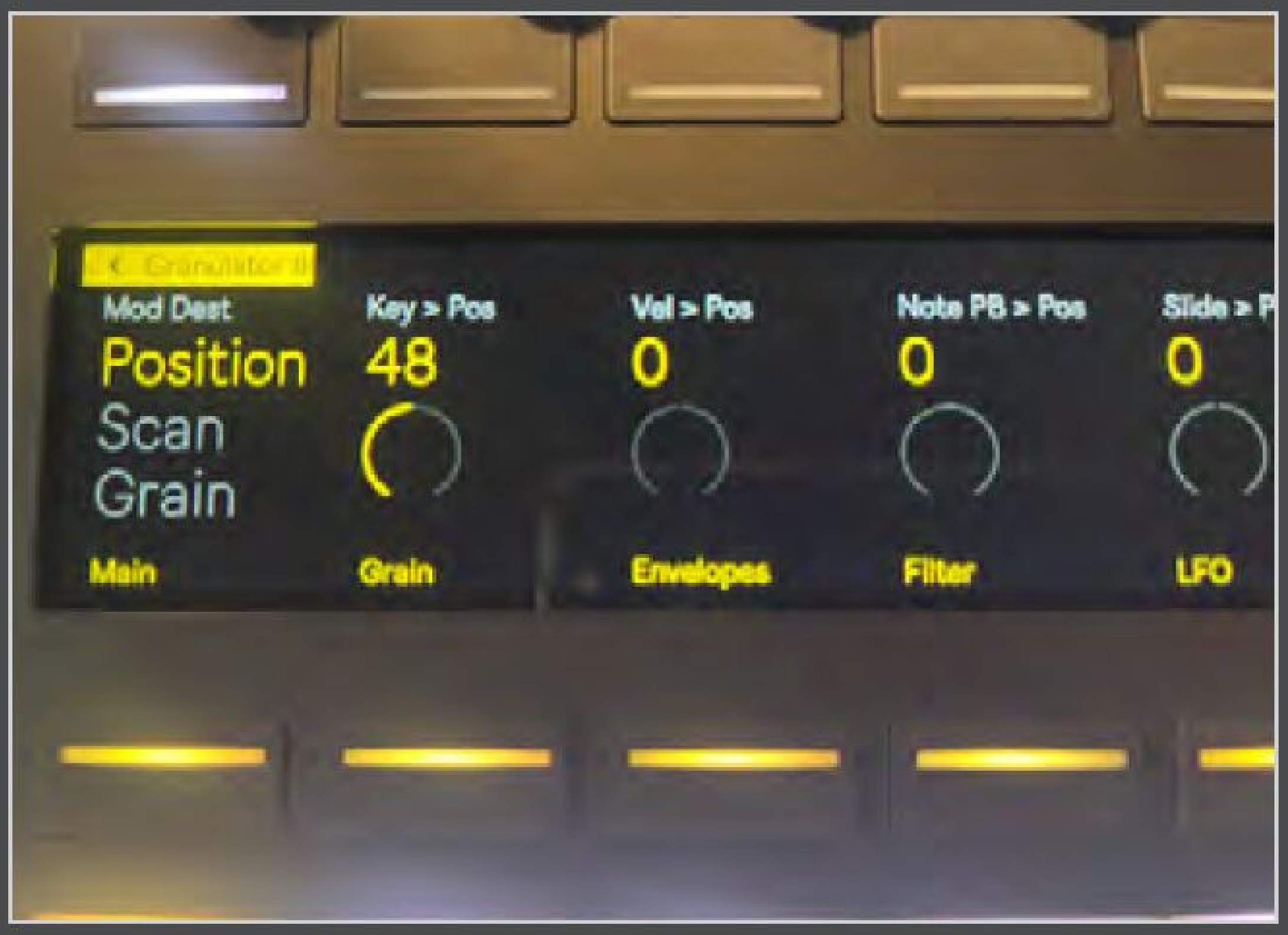
1 Select Sample

Load the Granulator III into a MIDI track. Load an atmospheric sample into the device. Samples with a natural reverb or interesting overtones are particularly suitable. Go to the Main menu of the Granulator in the Push display. Hold down a Push Pad and vary the **Grain Size**, that is, the size of the fragment, while the sound is running.


Mode
Cloud
Position
48.1 %
Scan
0.0
Grain Size
60.7
Density
4
Variation
5.49 %
Flt Freq
20.0
Grain
Envelopes
Filter
LFO
Variation
Modulation

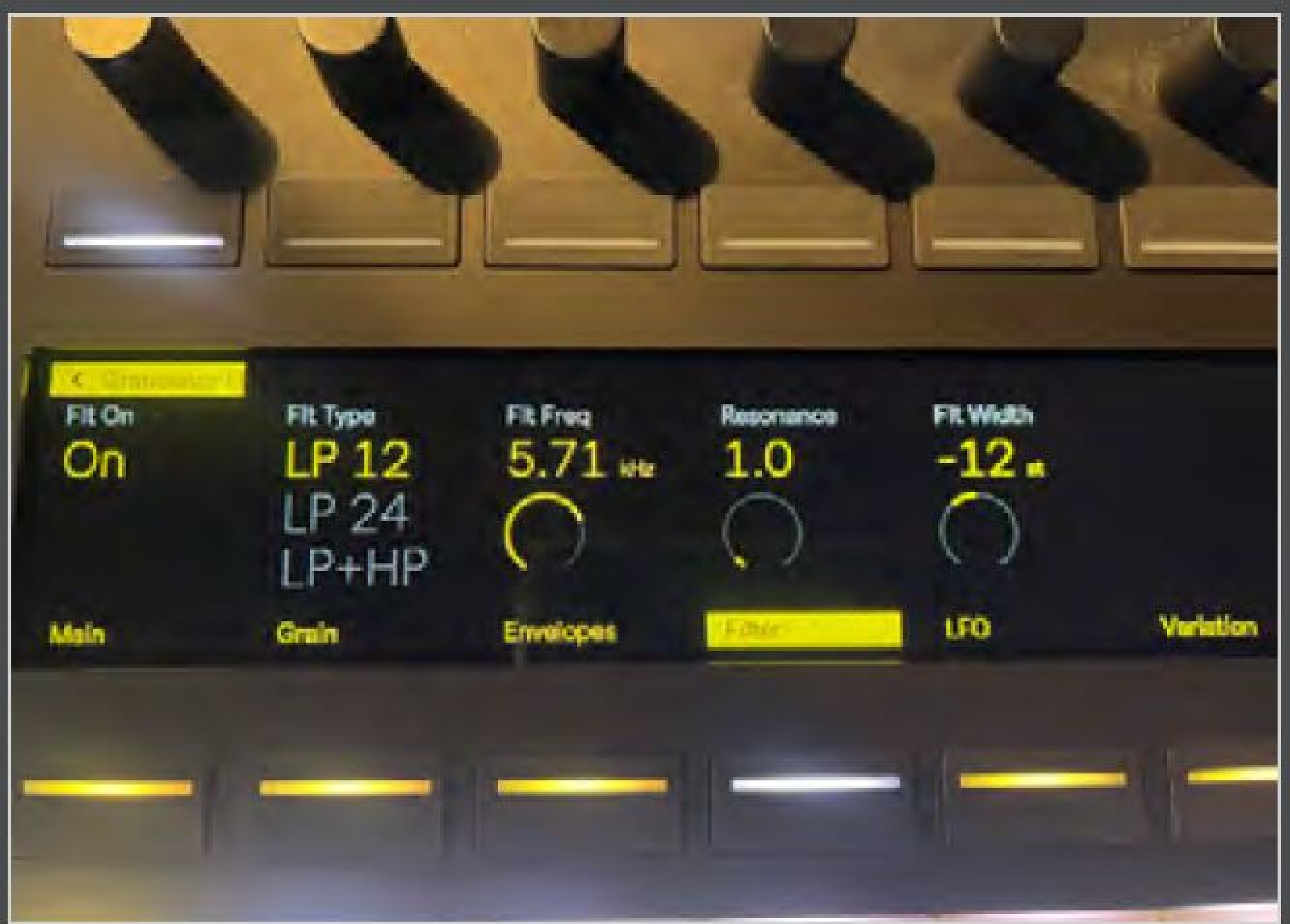
2 Select fragments

Smaller grains generate more even textures, larger grains create rhythmic structures. Scroll through the sample with **Position** to define the fragment extraction part. Keep the pad pressed and move the potentiometer to **4-6%** via **Variation** to create random deviations from the Grain Position.


Granulator
Mod Dest
Position
Scan
Grain
Key > Pos
48
Vel > Pos
0
Note PB > Pos
0
Slide > P
0
Main
Grain
Envelopes
Filter
LFO

3 Sample position

To make the sound more lively, go to the Modulation Granulator menu. Here, you can assign the Granulator's internal LFO to various parameters. Select the modulation destination on the left and then use the pots to modulate it. Select **Position** as the modulation destination and set **Key>Pos** to a medium value.


Granulator
Flt On
On
Flt Type
LP 12
LP 24
LP+HP
Flt Freq
5.71 kHz
Resonance
1.0
Flt Width
-12
Main
Grain
Envelopes
Filter
LFO
Variation

4 Varying sounds

Now a different position in the sample is selected for each pad strike, so that each pad has a different sound. Since the Granulator III is MPE-capable, you can play very expressively. Go back to the Main Menu. Slowly turn the **Filter Frequency** up and down while holding down a pad. You can set the filter type in the filter menu.

Granulator III
Phaser-Flanger
Spectral Time
0.0
29 %

5 Shaping the sound

To vary the timbre of the texture more, load a Phaser Flanger effect into the track and set Feedback to **21%** so that the sound modulates slightly. Optionally, load the Spectral Time behind it to further color the sound and set **Dry/Wet** to 48%. To make the sound more spatial, load the Echo effect and set **Dry/Wet** to 30%.

Granulator III
Amount
35.7 %
Phaser-Flanger
Shape
0.00 %
Spectral Time
Invert
Normal
Echo
Waveform
Sine
LFO Type
Frequen
Undo
Save

6 Get things moving

Finally, add an Auto Pan to the track to add movement to the sound. Set **Amount** to **35%** and a set a medium **Rate** for slow movements from left to right. Experiment with different effect settings. Resample interesting sound results that you can then reuse as unique samples!

BEHIND THE BEAT

6.000 listeners
are already on board! You too?

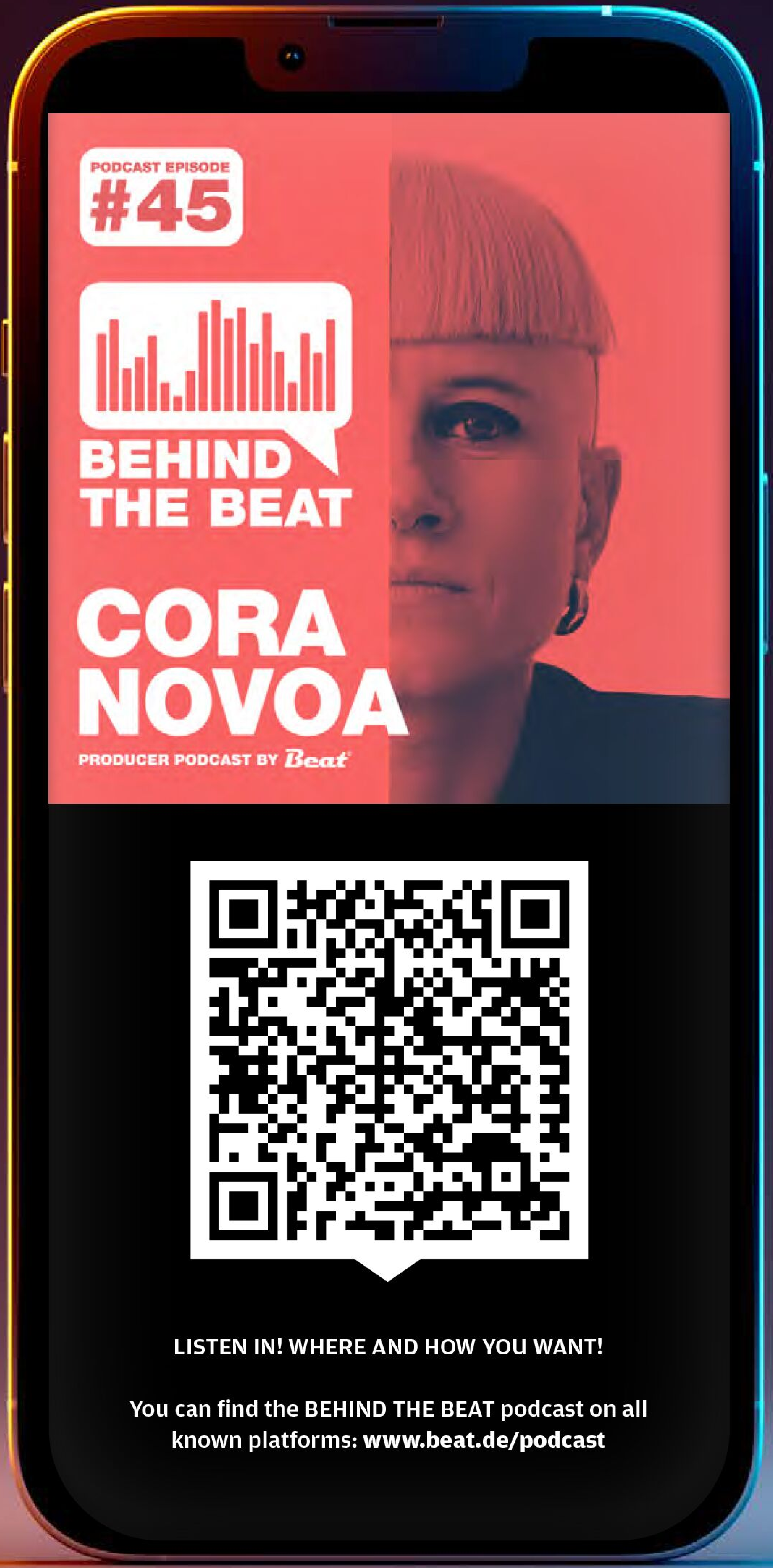
Episode #45 with Cora Novoa

It‘s an ecstasy

Tobias Fischer is your host for the Behind the Beat Podcast. This episode is dedicated to Spanish producer, DJ and label founder Cora Novoa and her constant quest for a total work of art.

In October 2024, an apocalyptic rain poured down over eastern Spain and Valencia. In a single day, the skies released as much water as in an average year. 232 people were killed as a result of the torrential floods and the ensuing chaos, many tens of thousands had to be rescued. Global climate change undeniably contributed to the scale of the disaster, but the failure was foremost a political one - just a year earlier, the local government had declared the early-warming-system unnecessary and, even shortly before the disaster, ignored interventions by a meteoreologist.

At the time of the flood, Cora Novoa had already finished her new EP This is not about you and me. This is about us. Nevertheless, it came across as a direct commentary on the horrific events - and not just because Novoa feels closely connected to Valencia, its citizens and the



LISTEN IN! WHERE AND HOW YOU WANT!

You can find the BEHIND THE BEAT podcast on all known platforms: **www.beat.de/podcast**

Spotify · amazon music · Apple Podcasts · Pocket Casts · Castbox · Google Podcasts · podcast.de · deezer · evosonic city's spirit. More to the point, the release is the final part of a trilogy that deals with the effects of digitalisation on humanity, with loss and pain as well as our sense of community. Each EP is a collection of diary entries in which Novoa explores current issues, seeking the personal in the universal and moving from the private to the public.

For Novoa, working with concepts has been part of making music from the very beginning. Deeply thought-out cover designs and artworks, fashion, video, carefully curated events - everything combines to create a Gesamtkunstwerk which asks questions and provides facts. That said, this is never a case of complex avant-garde material, nor of cerebral, difficult entertainment. Even if each of the three EPs defines its very own stylistic language - from gothic and dark ambient to ethereal electronica and pristine techno - each of them always gets the body moving first.

It's an ecstasy that actually cancels out the I and the you and instead emphasises the we. And for all its darkness, it is a music of hope - even in Spain's post-flood hours of pain and mourning, it was ultimately the local community's willingness to help that will be remembered above all.

www.beat.de/podcast

THIS IS NOT ABOUT YOU AND ME
THIS IS ABOUT US
ACT 3

ACT III was officially released on December 5th and marks the conclusion of the Mental Diary trilogy and the culmination of her most ambitious and personal project to date.

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SSDs compared

Storage giants in mini format

External SSDs now also offer fast data transfer when connected via USB. On the Mac, however, their potential remains partially unused; only the more expensive Thunderbolt drives are still really fast. For our buying guide, our colleagues from MacLife magazine compared current models from both camps in a practical test - on the Mac, as well as on the iPhone and iPad. by Stefan Molz

Higher, faster, further: data volumes and transfer rates are constantly increasing. Fixed storage in the form of SSDs not only impresses in the aforementioned disciplines; they also make fast storage compatible with today‘s need for mobility. External SSDs are indispensable companions for anyone who wants to transfer their data quickly and reliably, whether working from home, on the road or sharing files with colleagues. They are also the best option for easily adding storage space to a Mac.

These small storage giants offer a number of advantages over conventional hard disks with their rotating data disks. The classic hard disk barely plays a role for most Mac users anymore and is most likely to only be used in network storage systems or other "data dumps". The solid-state drives are as fast as lightning, with the current USB specifications allowing transfer rates at Thunderbolt level - at least in theory. In contrast to those old familiar hard disks, they are also significantly more compact and lighter. This means they fit comfortably in any pocket and aren‘t a burden when on the move. Thanks to their robust design and the fact that they have no moving parts due to the way they work, they are also protected against shocks and vibrations. No moving parts also means that SSDs work silently, which is relevant in recording situations in the home studio, for example, but is also easy on the (hearing) nerves in general.

Whether it's large capacities for backups, for example, via Time Machine, or SSDs with a focus on performance, for example, for video editing directly on an external drive - there is a large selection of external fixed storage drives. As part of our comparison test, we have put eight current models through their paces, bits and bytes over the past few months, documenting differences in performance, features and pricing in order to provide the best possible advice when making a purchase decision. It is important to note that the choice of the right external SSD depends on individual requirements. Therefore, in our test you will also find a table in which the most important features of the eight test models can be compared at a glance.

Synology Beedrive

At first glance, the Beedrive is simply a particularly compact external SSD. But first impressions are deceptive, because the Beedrive sees itself as a specialist and stands out from the competition. It is defined by its software component, which transforms the drive into a personal backup hub. After setting up the app, which is available for Windows, Mac, iOS and Android devices, documents, photos and files can generally be backed up to the Beedrive. This not only makes it possible to free up storage space on your devices, but also to establish a cross-device storage location for your own data - a cloud for your pocket, so to speak.

However, the performance values are the weakest in the test; we measured no more than 693 MB/s reading and 797 MB/s writing with our tools. We were also not quite as enthusiastic about the Mac version of the Beedrive software, which digs deeper into the system via a so-called kernel extension. Our test computer crashed repeatedly with the Beedrive plugged in and the Beedrive software running.

Thanks to its light weight and compact design, the Beedrive fits in any pocket and, as such, fulfills the promise of an "always and everywhere" backup. The casing has no frills and is made of shatterpro-

OUR EXPERT FOR SSDS

Stefan Molz has been saving data since the days of the datasette. Back then, in the days of the C64, a floppy disk drive was considered an insane luxury.

Stefan cheers the death of the rotating disks, whether in floppy or conventional hard disk: "Not only are SSDs significantly faster, they work as quiet as a mouse, are tough and also fit in your pocket.

KIOXIA
SAMSUNG
LACIE
crucial

From fast to faster: Eight external SSDs are put to the test, with transfer rates between 1,000 and more than 3,000 MB/s, according to the manufacturers. Photo: Stefan Molz

of plastic; the Beedrive survived our routine push from our desk unscathed. If the software problems are solved, it is a good backup solution for less experienced users, but it also costs a few Euro more.

OWC Envoy Pro Elektron

The OWC Envoy Pro Elektron throws itself into the ring with solid technical key data. The manufacturer advertises transfer rates of up to 1,011 MB/s. In our own test, read rates of up to 710 MB/s and write rates of 950 MB/s were achieved - that's ok, but not outstanding.

The star of this SSD from the American Mac accessory specialist, Other World Computing, is the robust aluminum housing with IP67 certification. The drive is protected against water and dust and looks particularly good next to all silver Macs with its Apple aluminum look. Thanks to its solid metal housing, you don't have to worry about the condition of the floor rather than the SSD if you “accidentally” knock it off your standing desk. The fact that the device can get quite warm is a feature, not a defect: the metal casing obviously dissipates the waste heat most excellently.

With dimensions of 12 x 76 x 52 millimeters, the Elektron fits into most pockets; but with a weight of 85 grams, it also stands out. Occasional users without a need for special protection against dust and water should also consider whether they want to pay almost twice the price of competitors for its robustness and the stylish metal casing before buying.

Samsung Portable SSD T9

Samsung is one of the big players in the SSD sector. The T-series has proven itself in various iterations over the years. The new Portable SSD, the T9, therefore enters the comparison with a certain amount of confidence.

With USB 3.2 Gen 2x2, it achieves up to 1,027 MB/s read on our Mac Studio and 995 MB/s write. This means that the T9 delivers exactly the values that are to be expected, as Apple does not yet support USB 3.2 Gen 2x2, that is, so-called multilane operation - in other words, the bottleneck here is

> » An SSD („Solid State Drive“) is a fast, digital memory with no moving parts that offers rapid access, fast transfers and high reliability. «

Our Tips

Crucial X10 Pro & Samsung T9

Editorial Recommendations

The Crucial X10 Pro is placed in the golden mean in the comparison test. It is one of the fastest SSDs in the test field, yet affordable, compact and robust. The catch: On a Mac, at least, its full potential is untapped. This is a fate it shares with the equally powerful and highly recommended T9 from Samsung. Both SSDs are an excellent choice for anyone who values performance, robustness and a fair Price/Performance Ratio.

Beat
Test winner
04/2025

Also Good

Sandisk Pro-G40 SSD

Performance Winner

The Sandisk Pro-G40 SSD is the fastest SSD in our group. It achieves excellent read and write speeds on Macs with Thunderbolt. Although slightly larger and heavier than the other SSDs in the comparison test, it still fits in any bag. As the most expensive SSD in the group, it is primarily aimed at users who require top performance, for example, for editing high-resolution photos and videos directly on the drive, and for those for whom time is synonymous with money. The Lacie Rugged SSD Pro is no worse, and is recommended for its proven reliability since its 2021 test.

Best Price

Kioxia Exceria Plus

Price/Performance Winner

The Kioxia Exceria Plus impresses in the comparison test with its excellent Price/Performance Ratio. It offers the typical performance of mid-range USB SSDs with USB 3.2 Gen 2 and is housed in a high-quality, robust metal casing - its low price is not visible beyond the somewhat obtrusive logo print. As the cheapest SSD in the comparison test with great performance, it is the best choice for anyone looking for a good SSD at an affordable price.

Beat
Nice price
04/2025

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the USB specification of the Mac, not the Samsung SSD, which is actually faster on supported systems.

The T9 measures 88 x 60 x 14 millimeters and weighs 122 grams. The surface is rubberized - this ensures that the SSD doesn‘t fall out of your hand in the first place; if it falls over the edge of a desk, the rubber coating has a shock-absorbing effect. It also acts as a dust magnet in everyday use. Bonus points are awarded for the trust that Samsung itself places in its product: a five-year manufacturer‘s warranty promises long-term reliability. The SSD is available in capacities of 1 TB, 2 TB and 4 TB. In practice, the SSD impresses with its size, good performance values and optional data encryption via AES 256-bit at hardware level with password protection. In terms of price, the T9 is in the mid-range.

> » The fastest SSD memory is the one that is installed in the Mac straight from the factory. As it cannot be expanded, you shouldn‘t skimp here when configuring your computer. «

Lacie Rugged SSD Pro

As a Thunderbolt device, the Lacie Rugged SSD Pro is not only an impressively fast SSD, but also exceptionally robust. It combines the speed of a Porsche with the durability of a tank - we already attested to this in the individual test of the Rugged SSD Pro in issue 04/2021; since then it has also been doing its rounds here without any signs of fatigue. Thanks to NVMe storage, it achieves transfer rates of up to 3,038 MB/s, making it ideal for photographers and filmmakers who want to work directly on the drive.

The compact, dust-, shock- and weatherproof housing, which can even withstand brief immersion, is specially designed for mobile use. It can withstand a simulated “fall” from a fully extended standing desk without complaint. Lacie scores with performance, but as one of the two Thunderbolt SSDs, it is also compatible with USB-C. This drive can, therefore, be used both on the fast Thunderbolt ports of a Mac Studio and on the naturally slower USB-C ports of a MacBook Air. Older Thunderbolt SSDs, such as the Samsung X5, cannot do this.

Its robustness makes it an excellent choice for anyone who wants to keep their data safe even when traveling under adverse conditions. The initial disadvantage is the significant heat development during operation, but this will not affect the SSD for years to come. Typically Thunderbolt, the Rugged SSD Pro is relatively expensive compared to USB SSDs - it is clearly aimed at those who

Photo: Stefan Molz

deal with large amounts of data in photography, videography and music production and require high transfer rates.

Lacie Rugged Mini SSD

With the Rugged Mini SSD, Lacie has a significantly cheaper alternative to its NVMe Pro model in its portfolio. It currently achieves read speeds of up to 1,014 MB/s and write speeds of up to 963 MB/s on the Mac. The same applies here: USB 3.2 Gen 2x2 remains a wasteland on the Mac; the Lacie cannot reach its full speed.

The resistant IP54-certified housing is an eye-catcher (and a matter of taste); instead of boring black, Seagate subsidiary Lacie has opted for a bright signal color for the rubber bumper that runs all the way around. The Rugged Mini SSD is difficult to misplace thanks to its color scheme.

Overall, the Lacie Rugged Mini SSD offers an impressive overall package of speed, robustness and reliability. As with all multi-lane USB 3.2 SSDs, the advertised speed will not be achieved on the Mac - at least not until Mac model year 2023.

At 105 x 67 x 17 millimeters, the cheaper Lacie is the chunkiest SSD in the test - the bumper is bulky. However, the weight of 114 g is within reasonable limits. The three-year warranty and the extreme robustness should be emphasized - it can easily take a fall from a standing desk, we see the Rugged Mini SSD as a good choice for outdoor enthusiasts and photographers who want to store their data well protected even under adverse conditions.

Sandisk Pro-G40 SSD

Western Digital primarily serves the market for external SSDs via the Sandisk brand. The Pro-G40, a Thunderbolt 3 SSD that is also compatible with USB 3.2 Gen 2, is available under the Sandisk Professional label and is connected via NVMe to a WD Black SN750E, which takes the performance crown: The

> » The drives are easily connected using the cable with USB-C connector included with every SSD. An adapter from USB-C to USB-A or a second cable with a USB-A plug is often also included. The two Thunderbolt SSDs come with a Thunderbolt 3-capable cable. «

SSDs for the iPad and iPhone: How it works!

To connect external SSDs to your iPhone or iPad, you will need the appropriate adapters. Or you may already be using one of the devices with a USB-C port, such as an iPhone 15 Pro. Immediately after connecting the drive, the Files app opens automatically, where you can access the stored data. You can move, copy and manage files, just like on a Mac. Please note that certain file systems may not be supported. For use on iPhone and iPad, we recommend APFS if only used on iPhone or iPad and a mixed environment with Macs; exFAT if other devices such as Windows or Linux PCs should also access the storage.

On Etsy and from accessory suppliers such as Smallrig, you can find holders that allow an iPhone to “piggyback” an SSD. If you‘re not averse to daring DIY solutions somewhere between Mad Max and MacGyver, you can find magnetic stickers on Amazon or Aliexpress that can be used to make external SSDs unofficially MagSafe-compatible.

> **» SSDs with a higher capacity use more memory chips in parallel, which accelerates data processing and often results in a slightly higher result. «**

Sandisk SSD achieves average read speeds of 3,135 MB/s and write speeds of 2,668 MB/s in our measurements - its own performance specifications are even exceeded by a few percent.

The Pro-G40 SSD is shockproof, waterproof and dustproof and has the highest IP protection class in the test field. According to the manufacturer, it can withstand drops from a height of up to 3 meters, and it easily withstood a fall from a height of 180 centimeters from our standing desk. In practical use, the Pro-G40 SSD impresses with its very high performance, robust design and diverse connection options - on Macs without Thunderbolt, it falls back to USB 3.2 Gen 2 and then delivers around a third of the transfer rates.

The high performance of the Pro-G40 SSD makes it the perfect choice for editing high-resolution photos and videos directly on the drive when working on a Mac with Thunderbolt 3 or higher. The robust design of the Pro-G40 SSD makes it ideal for use in adverse conditions. It is, therefore, the perfect companion for photographers, video enthusiasts and other creative professionals who work on the move. For this clientele, the highest price in the test field should not be an exclusion criterion.

Crucial X10 Pro

The Crucial X10 Pro is an external SSD that is characterized on paper by its high performance, but when unpacked by its surprisingly compact size and simple, elegant design. On our Mac Studio with M1 Max chip, the Crucial SSD achieves read speeds of up to 1,013 MB/s and write speeds of up to 916 MB/s - so this USB 3.2 Gen 2x2 drive on the Mac also falls short of its potential and can only deliver its full speed with almost double the performance values on supported Windows systems. However, this is not the fault of the manufacturer, Micron. As with the fast Samsung T9 and Lacie Rugged Mini SSD, the Mac is the bottleneck here.

	Beedrive	**Envoy Pro Elektron**	**Portable SSD T9**	**Rugged SSD Pro**	**Rugged Mini SSD**	**Pro-G40 SSD**	**X10 Pro**	**Exceria Plus**
Manufacturer	Synology	OWC	Samsung	Lacie	Lacie	Sandisk	Crucial	Kioxia
Capacities	1, 2 and 4 TB	240, 480 GB, 1, 2 and 4 TB	1, 2 and 4 TB	1, 2 and 4 TB	1 TB	1, 2 and 4 TB	1, 2 and 4 TB	500 GB, 1 and 2 TB
Connection	USB-C	USB-C	USB-C	USB-C	USB-C	USB-C	USB-C	USB-C
Interface	USB 3.2 Gen 2	USB 3.2 Gen 2	USB 3.2 Gen 2x2	Thunderbolt & USB 3.0	USB 3.2 Gen 2x2	Thunderbolt & USB 3.2 Gen 2	USB 3.2 Gen 2x2	USB 3.2 Gen 2
iPad [1]	✓	✓	✓	✓ (iPad Pro with Thunderbolt)	✓	✓ (iPad Pro with Thunderbolt)	✓	✓
iPhone 15 [2]	✓	✓	✓	✗	✓	✗	✓	✓
File System [3]	exFAT	exFAT	exFAT	exFAT	exFAT	APFS	exFAT	exFAT
Read [4]	693 MB/s	710 MB/s	1.027 MB/s	3.038 MB/s	1.014 MB/s	3.135 MB/s	1.013 MB/s	964 MB/s
Writing [4]	797 MB/s	950 MB/s	995 MB/s	1.954 MB/s	963 MB/s	2.668 MB/s	961 MB/s	1.030 MB/s
Weight	43 g	85 g	122 g	100 g	114 g	121 g	42 g	76 g
Dimensions	65 × 65 × 15 mm	76 × 52 × 12 mm	88 × 60 × 14 mm	98 × 65 × 17 mm	105 × 67 × 17 mm	111 × 58 × 12 mm	65 × 50 × 10 mm	105 × 45 × 15 mm
Warranty	3 years	3 years	5 years	5 years	3 years	5 years	5 years	3 years
IP Protection	none	IP67	none	IP67	IP54	IP68	IP55	none
Additional functions	Backup Software, also for iOS devices	-	Hardware encryption	-	-	-	-	-
Additional scope of delivery	USB-C cable, Adapter to USB-A	USB-C cable, Adapter to USB-A	USB-C cable, USB-A cable	Thunderbolt-3 cable	USB-C cable, Rubber cap for USB-C socket	Thunderbolt-3 cable	USB-C cable	USB-C cable, USB-A cable
Price	From 150 Euro	From 95 Euro	From 135 Euro	From 220 Euro	From 150 Euro	From 340 Euro	From 120 Euro	From 80 Euro
Link	synology.com	owc.com	samsung.com	lacie.com	lacie.com	western digital.com	crucial.de	kioxia.com
	2.5	**2.0**	**1.3**	**1.2**	**1.5**	**1.2**	**1.3**	**1.4**

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[1] tested on iPad 10th generation 2 mounts and can be used via Files app, on iPhone 15 Pro (Max) video recording in ProRes Log 4K60 directly to the SSD possible 3 on delivery 4 Determined with Amorphous Disk Mark 4.0.1 (5 runs, 4 GiB) under macOS 14.1.1 (APFS)

SanDisk PROFESS
SUNG
crucial

Photo: Stefan Molz

The X10 Pro is extremely compact and lightweight, combining aluminum with a non-slip rubber underside. A status LED is embedded in an eyelet that allows it to be attached to a lanyard. At just 65 x 50 x 10 millimeters and its flyweight of just 42 grams, the X10 Pro is the lightest and smallest SSD in the comparison, is in the mid-range in terms of price and, thanks to USB 3.2 Gen 2x2, theoretically has a turbo that, unfortunately, cannot yet be used on the Mac. The equally excellent previous model without multilane support delivers almost identical performance on the Mac; you can save a few Euro here.

Kioxia Exceria Plus

There are brands that we haven‘t even heard of yet – such as Kioxia. Their Exceria Plus Portable SSD measures a flattering 105 x 45 x 15 millimetres and weighs just 76 grams, despite its all-aluminum casing. The space gray casing makes it look particularly good next to correspondingly colored MacBooks, but the logo print could have been a little more discreet.

In our test, the small Kioxia achieved sequential read speeds of 964 MB/s and write speeds of 1,030 MB/s - these are good values for a USB 3.2 Gen 2 drive. It gets quite warm during operation, so the metal housing cools effectively. The Exceria Plus can‘t be harmed by the bounce from our desk either; the manufacturer itself has carried out drop tests in accordance with the MIL standard. The space gray SSD does not have an IP protection class.

The Kioxia is the cheapest external SSD in our comparison test. Its price combined with good performance makes it an attractive option for anyone looking for a good SSD at a low price.

Verdict

Eight external SSDs were at the starting line of our comparison test; eight made it to the finish line - there was no total failure to report. First of all: The fact that the currently fastest USB SSDs according to USB 3.2 Gen 2x2 do not deliver their speed advantage on a Mac, at least not at the moment, is not due to the manufacturers of the SSDs. It is simply the Mac that does not support the necessary specification - on compatible Windows PCs, the drives, which on paper deliver around 2,000 MB/s, do so in practice. Despite the high level of performance across the board, with the exception of one special case, three winners emerged from the test field.

The Crucial X10 Pro impresses with its good price-performance ratio. It offers excellent performance, has a compact size and a reasonable price - for us it is damn close to the “all-in-one” and, therefore, also the “Editors‘ Choice”. The same applies to the equally impressive T9 Portable SSD from Samsung, which also receives our award. On a Mac, however, you have to do without the speed advantage of USB 3.2 Gen 2x2.

However, the two Thunderbolt devices go the extra mile in terms of performance. Both the Lacie Rugged Pro and the Sandisk Professional Pro-G40 are significantly faster than their USB competitors - the latter professional SSD takes the performance crown by a wafer-thin margin. As the fastest SSD in the test field, it achieves read speeds of up to 3,135 MB/s and write speeds of up to 2,668 MB/s. It is also noticeable that the Thunderbolt SSDs mount much faster and also log out of the system more quickly. The Beedrive is completely outside the test field. Its performance values are not very impressive. This is less of an issue for an SSD launched as a dedicated backup medium, but Synology occupies an interesting niche in the overall package, taking the Beedrive software into account.

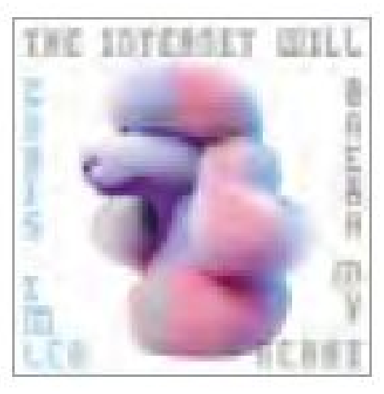
A QUESTION OF FORMAT

All of the SSDs tested work straight out of the box on the Mac without any problems, and all but one are pre-formatted in exFAT. If you often exchange data with Windows and Linux, simply stick with this format.

If you only want to use your SSD under macOS, iOS and/or iPadOS, you should format the drive in Apple‘s own APFS format. The corresponding option can be found in the macOS hard disk utility. Please note that all data already stored on the SSD will be deleted.

Monthly music treasures

by Sascha Blach



Chris Imler: The Internet Will Break My Heart

As a drummer, Chris Imler has collaborated with artists such as Die Türen, Golden Showers, Peaches, Oum Shatt, Maximilian Hecker and Jens Friebe. With his solo project, the Berlin musician follows in the footsteps of Kraut-Rock, Electro and New German Wave. His current album „The Internet Will Break My Heart“ is defiant and eccentric. Minimalist electronics go hand in hand with experimental soundscapes and monotonous spoken word. The German lyrics are poetic and thoughtful, but also stubborn and Dadaistic. Imler also seems to have a sense of humor, as „Me Porn, You Porn“ suggests. Much of it seems to be based on improvisation - at least that‘s the case in his live shows - and this album also sounds spontaneous and unpolished. Anyone who likes it unconventional, somewhat intellectual and a little bit weird will definitely get their money‘s worth!

Genre: Kraut Electro | Label: Fun In The Church

Elme: Bird Of The Year

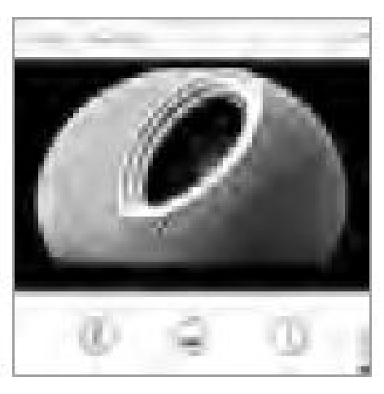
The Leipzig duo Elme sees music as a creative playground. At least that is the impression given by their current, second album „Bird Of The Year“. In addition to live instruments such as guitar and drums and electronic sound generators such as analogue synths and drum machines, the protagonists Markus Rom and Sebastian Bode love to use samples to create a nostalgic feeling. Between the lines you can hear long-forgotten sounds from a modem dialling into the Internet, rotary dial telephones or old games consoles. These are embedded in a sound that does not fit into any conventional category and combines elements from Ambient, Indietronica, Electro, Jazz and Big Beat. It is this anything-goes attitude that characterises the duo‘s sound and makes it interesting. Certainly not music for the millions, but a hobby project for all those who have retained the curiosity of their childhood days.

Genre: Indietronica | Label: Teleskop

Maribou State: Hallucinating Love

The British Electronica duo once again creates a feel-good atmosphere on their fourth studio album, the ingredients of which go far beyond traditional Electronic Music. Once again they enrich their organic, atmospheric sound between Trip Hop, House and Downtempo with Soul and Funk elements, chilled beats, exotic ingredients and live instruments. The vocals are partly provided by samples, partly by guests such as singer Andreya Triana and long-time collaborator and singer Holly Walker. The ten songs seem cinematic and thoughtful, but also summery, positive and groovy. „Hallucinating Love“ is a beautiful album with enough Pop appeal for the masses, but also enough production tricks to be interesting for music nerds.

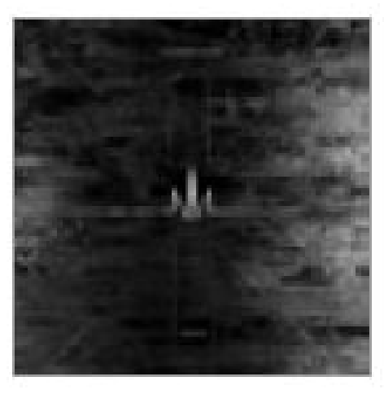
Genre: Electronica | Label: Ninja Tune



Ran Slavin: Software Shadows

The Israeli artist loves the combination of different media forms. Music is only one aspect of his expression, which also includes video installation, film, electronic media and graphic design. His new album „Software Shadows“ - his 19th - is Downtempo in the broadest sense, but takes an experimental approach to it. The 14 instrumentals are often claustrophobic and weird, and the drum and synth programming, which sometimes grooves along in a relaxed manner, piles up in avant-garde sound clusters. You sometimes feel like you‘re in a dystopian soundtrack. The grooves themselves are often pleasantly abstract, which sets Slavin‘s music apart from the average, but also makes it difficult to digest if you‘re not used to such experimental sounds.

Genre: Downtempo | Label: Nocturnal Rainbow Recordings



Cluster Lizard: Herts

This music may be instrumental in nature, but it is nevertheless highly political. Inspired by the bold Cossack ritual of the same name, where Ukrainian warriors celebrated a courageous dance of death, Cluster Lizard verbalize the current resistance of Ukrainian soldiers and show solidarity with them. Field recordings from the resistance unit Blind Fury were repeatedly incorporated into the avant-garde mix of Noise, (Post-)Industrial and Experimental. The music seems claustrophobic and oppressive, often monotonous, and yet radiates power and energy. At times you can also sense folkloristic echoes before the music flows back into crudely distorted sound clusters. Cluster Lizard is the work of the two Ukrainian artists Dmytro Fedorenko and Kateryna Zavoloka, who are based in Berlin and see the whole thing as an interdisciplinary mixed media project. Heavy stuff, but for good reason!

Genre: Noise | Label: Prostir

Iggor Cavalera & Shane Embury: Neon Gods / Own Our Darkness

One guy wrote metal history as the drummer for Sepultura, the other still abuses the bass for Punk Death Metal legends Napalm Death. On this split EP, however, it is not Metal that brings them together, but experimental Electronic Music. Iggor Cavalera is responsible for the almost twenty-minute Dark Ambient adventure „Neon Gods“, which quickly turns out to be an auditory nightmare in which Drone elements, static waves and Industrial noise set the tone. On side B - the release is also available on vinyl! - Shane Embury abuses not the bass, but the Solar 42 synth, coaxing tormenting drones from it that lurk threateningly and hypnotically and build up ever further into a frenzy of distortion and darkness. Shane‘s apocalyptic performance lasts thirteen and a half minutes and fans of Dark Ambient are sure to be thrilled.

Genre: Dark Ambient, Industrial | Label: Cold Spring

Millhope: Truth And Dare

Millhope is a relatively new electronica project by the musician and namesake Thomas Mühlhoff – yes, Millhope sounds more interesting than Mühlhoff – who produces predominantly instrumental sounds that sound pleasantly chilled without being too quiet. With a healthy drive, Mühlhoff works his way through influences such as Chillwave, Ambient, Pop, Rock and Downbeat and creates something new from them. His main instruments are synthesizers and drum machines, but guitars and field recordings such as the sound of the sea, birdsong or rain noises also find their way into his atmospheric, playful sound. For long stretches, „Truth And Dare“ seems thoughtful and dreamy, and yet the eight tracks plus two remixes (by Lusine and Rafael Anton Irisarri) convey an interesting flow that has something of a constant wave movement.

Genre: Chillwave | Label: Hey!blau Records

Thomas Lemmer: Dreamscapes

There isn‘t really much to say about Thomas Lemmer‘s new album, because the sound can be summed up in one word: Ambient. The ten tracks plus bonus track all have no beats or vocals, they sound very spherical, meditative and weightless. They are carried by synthesizer sounds - mostly pads, but also often small melodies and arpeggios - as well as the occasional use of the piano. Great music for meditation, yoga or falling asleep, because nothing disturbs you on this peaceful album. For all those who - like Thomas Lemmer himself during production - are looking for peace of mind, „Dreamscapes“ is a good springboard to inner worlds. It is interesting that it is also being released as a Dolby Atmos version, so that you can completely envelop yourself in the sounds.

Genre: Ambient | Label: Sine Music

Your event planner for 2025

19.03.2025 - 20.03.2025

LEaT X

Ofenwerk Nürnberg, DE

08.04.2025 - 11.04.2025

Prolight + Sound 2025

Frankfurt, DE

11.04.2025 - 13.04.2025

Synthfest France

Orvault, FR

08.05.2025 - 10.05.2025

Superbooth 2025

Berlin, DE

14.05.2025 - 18.05.2025

Berlin Dance Music Event

Berlin, DE

18.05.2025 - 18.05.2025

High End 2025

München, DE

23.07.2025 - 23.07.2025

Amazon Prime Day

Worldwide

08.09.2025 - 10.09.2025

AES Europe

London, UK

12.09.2025 - 15.09.2025

IBC2025

Amsterdam, NL

26.09.2025 - 28.09.2025

Guitar Summit

Mannheim, DE

GUITAR SUMMIT
STUDIO SOFA
DER PODCAST
SOUND & RECORDING STAGE

04.10.2025 - 04.10.2025

SynthFest UK

Sheffield, UK

14.10.2025 - 16.10.2025

LEaTcon 25

Studioszene Hamburg Messe, DE

22.10.2025 - 26.10.2025

Amsterdam Dance Event

Amsterdam, NL

Beat 05 | 2025
avail. April 4th, 2025

Feature: Audio-Interfaces 2025

Whether you want to record melodies or vocals, record or sample beats, integrate a modular system into your DAW or perform live - things only run smoothly with the right audio or CV interfaces. But which ones are best suited to your workflow? On over 20 pages, we clarify the most important questions directly with the manufacturers in the big market check, recommend setups for beginners to advanced users, present suitable models for the studio and on the road and also give specific tips on how to optimize and expand your setup. Plus an extra overview of the most common mistakes when setting up interfaces.

Test: Moog Muse

The predominantly analog Moog Muse is not only characterized by eight voices, but also has features that predestine it as an instrument for the stage. A spacious, structured panel and a variety of controls make it easy to create sounds as well as tweak them during a performance. Assignable controllers, direct access to layers, splits and chord triggers as well as versatile sequencer and arpeggiator features play into the hands of the live keyboardist in the truest sense of the word.

Photo: Pampa Records

Interview: DJ Koze

For his new album "Music Can Hear Us", DJ Koze once again invited a whole host of stars to his studio, including Damon Albarn (Blur, Gorillaz), Soap&Skin, Ada, Sophia Kennedy, Markus Acher (The Notwist) and Marewrew. He himself promises a "65-minute trip into space and back". In the next issue, we take a look behind the scenes of the production in an interview with the busy DJ.We are delighted to be able to present an interview with him in the next issue on topics such as songwriting, technology and equipment.

Test: Twisted Electrons TWISTfm

TWISTfm is a polyphonic FM synthesizer based on the earlier Soundblaster sound chips. The raw digital sound can be processed with an analog multimode filter for each of the 8 voices, and two layers enable exciting combination sounds. Of particular interest is the integrated touch controller, which enables intuitive control of various parameters in real time.

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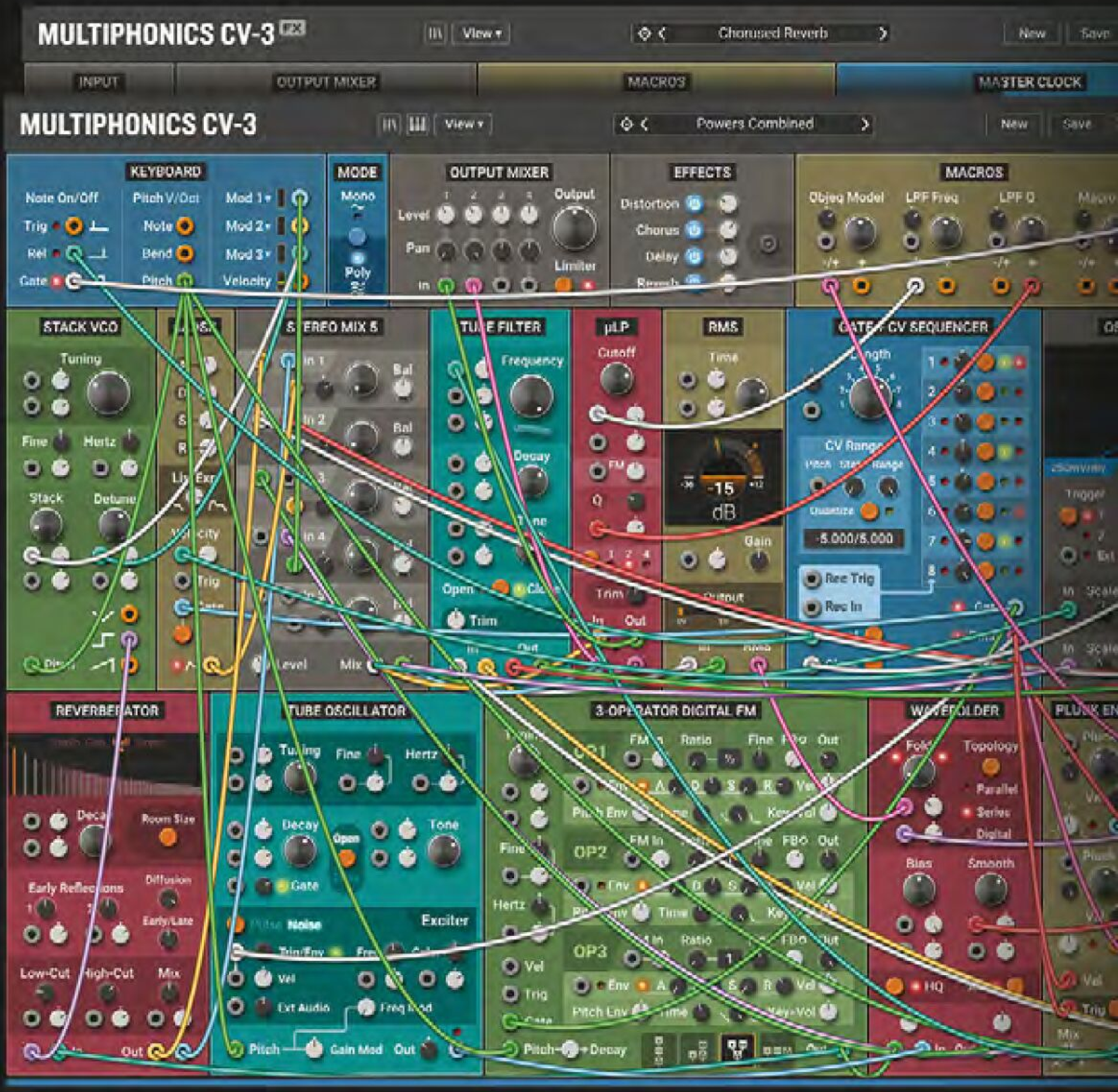
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